EFFICACY OF *INJI CHOORANAM* (INTERNAL MEDICINE) FOR THE TREATMENT OF *KUDIVERI NOI* (CHRONIC ALCOHOLISM) - AN OPEN CLINICAL TRIAL.

The dissertation submitted by

Dr.S.UTHRAPATHI

P.G.SCHOLAR

Under the Guidance of

Dr. V. MAHALAKSHMI M.D (s),

Lecturer, Department of Sirappu Maruthuvam,

Dissertation submitted to

THE TAMILNADU DR.MGR MEDICAL UNIVERSITY, CHENNAI-32

in partial fulfillment of the requirements

for the award of the degree of

DOCTOR OF MEDICINE (SIDDHA)

BRANCH III -SIRAPPU MARUTHUVAM

2015 - 2018

NATIONAL INSTITUTE OF SIDDHA

(The Ministry of AYUSH – Govt of India)

Chennai-47.

DECLARATION BY THE CANDITATE

I hereby declare that this dissection entitled Efficacy of an open clinical trial of ***Inji Chooranam*** **(Internal Medicine)** for the treatment of ***Kudiveri noi*** **(Chronic Alcoholism)** is a bonafide and genuine research work carried out by me under the guidance of **Dr. V. Mahalakshmi, Lecturer, Department of Sirappu Maruthuvam, National Institute of Siddha, Chennai-47**. This dissertation has not formed the basis for the award of any degree, diploma, fellowship or other similar title

Place: **Signature of the Candidate**

Date:

Dr. S. Uthrapathi

BRANCH III - SIRAPPU MARUTHUVAM 2015 – 2018
NATIONAL INSTITUTE OF SIDDHA, Chennai-47.

BONAFIDE CERTIFICATE

Certified that I have gone through the dissertation submitted by Dr.S.UTHRAPATHI (Reg.No: 321513206) a student of final year M.D(s), Branch-III, Department of SirappuMaruthuvam, National Institute of Siddha, Tambaram Sanatorium, Chennai-47, and the dissertation work has been carried out by the individual only. This dissertation does not represent or reproduce the dissertation submitted and approved earlier.

Name and Signature of the Guide,
Dept. of Sirappu Maruthuvam,
National Institute of Siddha,
Chennai-47.

Name and Signature of the HOD,
Dept. of Sirappu Maruthuvam,
National Institute of Siddha,
Chennai-47

Name and Signature of The Director,
National Institute of Siddha,
Chennai-47.

ACKNOWLEDGEMENT

- I thank My Parents, God, and Siddhars for giving me this opportunity, and providing the strength and energy to fulfil this commitment.
- I express my profound sense of gratitude to **Prof. Dr. V. Banumathi, M.D(S)**, Director, National Institute of Siddha, Chennai-47 for granting permission to undertake a study in this dissertation topic and also for providing all the basic facilities in order to carry out this work.
- I extend my sincere heartfelt thanks to **Dr. N. J. Muthukumar, M.D(s)** for his guidance during his tenure as Head of the Department (i/c), Sirappu Maruthuvam at National Institute of Siddha, Chennai-47.
- I express my sincere heartfelt thanks to **Dr. V. Mahalakshmi,M.D(S)**, Lecturer and my Guide, Department of Sirappu Maruthuvam, NIS, Chennai - 47, gave her insightful comments and constructive criticisms at different stages of my research which were thought provoking and they helped me to focus my ideas.
- I express my gratitude and heartfelt thanks to **Dr. R. Raman, M.D(S)**, Associate Professor, Dept. of Sirappu Maruthuvam, National Institute of Siddha, Chennai47, for his valuable guidance and encouragement.
- I express my grateful thanks to my Lecturers, **Dr. M. V. Mahadevan, M.D (S) Dr, D. Periyasami, M.D(S), Dr. P. Samundeswari,M.D.(S)**, Dept. of Sirappu Maruthuvam, National Institute of Siddha, Chennai-47 for the guidance and encouragement in carrying out this work.
- I express my sincere thanks to Lecturers, Dept. of Gunapadam, National Institute of Siddha for their support.
- I am thankful to **Dr. D. Aravind, M.D(S**) Associate professor, Dept. of Botany, National Institute of Siddha, chennai-47 106 for their guidance for my drug authentication.
- I thank **Dr. A. Muthuvel,M.Sc,Ph.D** (Biochemistry) Associate professor, National Institute of Siddha, Chennai-47 for his guidance in doing chemical studies.
- My special acknowledgements to **Mr.M.Subramanian,M.Sc.,** (Statistics), Senior Research Officer, National Institute of Siddha, Chennai-47, for his valuable help in statistical analysis.

- I gratefully acknowledge the assistance provided by all other faculties, Well-wisher and staffs of NIS, Chennai who rendered their cooperation throughout the course of study.
- I wish to dedicate this work to my parents **Mr. K. Sakthivel M.A Bed**., and **Mrs. C. Saraswathy**, and family who are helping and sacrificed everything for me and they support in every stage of this work and life.
- Especially I would like to express my sincere thanks to my seniors, juniors, and friends who help me a lot for my work.

CONTENT

INTRODUCTION

Siddha system which is an ancient medical system on par with the Ayurvedic system and mainly practiced in south India, is the natural based system, it has the basic principle that is “Unave marunthu”According to the literature,the systemwhich maintains the human body by three humours (Vaatham, Piththam, Kabam). These are the basic aliments to equilibrium of human Body’s constitutions which seven in nature named as Saaram, Senneer, Oon, Kozhuppu, Enbu, Moolai,Venner. Any derangement of the three humours and seven constitutions will result in the disease. In these modern world, change in life style and food habits play an important role in altering the normalcy of these three humours resulting in chronic diseases and discomforts in the body.

In antient tamilnadu, Toddy also called as pizhi,theral, ariyal .Yavanar who prepare the toddy, it was taken by tamil people. They take toddy along with honey, rice, and millet etc. Especially before enter to the battle ground the warier should take toddy along with fresh meet for the purpose to theft cattle.

……தீம் கந்தாரம்
நிறுத்த ஆயம் தலைச் சென்று உண்டு
பச்சூன் தின்று,பைந்நிணம் பெருத்த
எட்சில் ஈர்ங்கை விர்புறம் திமிரி
புல்புக்கனனே,புல் குணற் காளை
ஒருமுறை உண்ணா அளவை,பெருநிரை
ஊர்ப்புறம் நிறையத் தருகுவன்

\- புறநானூறு

As per Siddha text KUDIVERI NOI (MATHATHIYAM) is one of the psychiatric condition, caused by over consumption of liquor like things and non-vegetarian food followed by the symptoms of Intoxication, sweating, weakness, tremor, sleep disturbance, psychiatric problems, loss of appetite, vomiting. These symptoms can be correlated with chronic alcoholism(alcoholic dependence).

“சார யத்தைத் தானருந்தித் தலைமேல் விசமே யேறிடுகில்
சீரார் நடையும் கால்பின்னி சிறந்த முகமும் சீறியவர்
பாரார் கண்ணூம் விழிமசகி பார்வை சிவநீது வாய்புலம்பி
ஆரா ரென்ன் சொன்னாலும் அறிவு பிசகி யலறிடுமே”

- *Nanthesar agaalamarana nool*

According to the text *Nanthesar agalamarana nool*, due to over consumption of alcohol or arrack, the ill effects like dizziness, uncoordinated gait, reddishness of face, blurred vision, blabbering of speech, mental confusion and disturbance will be noted. Nadi (Pulse) won’t be correctly perceivable or will be in irregular rhythm, during this period as described by the siddha medical literature. While taking high forms of medication (eg.*Parpam, chenduram, mezhugu*) one should avoid any alcoholic beverages, the same should not be given to such individuals.

According to World health organization (ICD-10), Alcoholism is characterized by Intoxication, harmful use, alcoholic dependence, withdrawal symptoms (tremor, nausea, vomiting, sleep disturbance, anxiety) and psychotic disorders. Alcohol misuse has the potential to damage almost every organ in the body, including the brain. The cumulative toxic effects of chronic alcohol abuse can cause both medical and psychiatric problems. Long-term alcohol consumption also causes phrenopathy and social effects, such as violent crimes and traffic accidents.

The WHO also estimates that as of 2010 were 208 million people with alcoholism. The harmful use of alcohol causes death of about 3.3 million people worldwide annually. There are 60 different types of diseases where alcohol has a significant causal role. It also causes harm to the well-being and health of people around the drinker. In India, the estimated numbers of alcohol users in 2005 were 62.5 million, with 17.4% of them (10.6 million) being dependent users and 20-30% of hospital admissions are due to alcohol-related problems. Few studies have documented the pattern and profile of alcohol use and its impact in hospital and population-based settings.

However, it is known that these modern chemical drugs lead to abuse, psychological dependence and adverse behavioral effects. These drugs could also lead to physiological dependence when taken chronically and result in dose escalation.

Despite great progress made in the past two decades, the development of low toxicity and high efficiency medicines remains a challenging task for alcohol researchers.

Many herbal and herbo-mineral treatment practice are mentioned for de-addiction in Siddha system of medicine. The author has chosen *INJI CHOORANAM* for this study with relevance of symptoms present in alcoholic dependent patients.

AIM

To evaluate the therapeutic efficacy of *Inji Choornam* for the treatment of *Kudiveri Noi* (Chronic alcoholism)

OBJECTIVES:

PRIMARY OBJECTIVE:

To evaluate the therapeutic efficacy of *Inji Choornam* for the treatment of *Kudiveri Noi* (Chronic alcoholism)

SECONDARY OBJECTIVES:

- To do Biochemical analysis of the trial drugs.
- To evaluate the clinical symptoms, before and after the treatment

Review of Literature

SIDDHA ASPECTS OF KUDIVERI NOI

Definition:

Consciousness will turn, gossip speech, and the seven constituents of body also fat, semen, ovum will be affected one by one due to over consumption of alcohol, arrack or fermented juice.

Aetiology:

Over consumption of alcohol, country arrack and fermented juice for a long time

Clinical features:

There are four stages of alcoholic intoxication

a. First Stage:

Its characterized by one of the groceries is a kind of excitement, encouragement, exhilaration, and reminiscent of the forgetfulness of the past, such as the body's warmth and physical strength

b. Second Stage:

The mood elevation and strength will be slowly decreasing and due to lack of co-ordination the person will be behaving madly and short tempered, scolding and attacking other, immoral behaviours and finally become unconscious

c. Third Stage:

The large amount of alcohol consumption produces changes in the person’s behaviour, which is became most aggressive and disrespect to others. The person will exhibit all kinds of physiognomy.

d. Fourth Stage:

Its characterised by destruction of physical and mental health. Fell down without conscious. Chillness and over sweating of all over the body. Sometimes this leads to fatal condition.

Other clinical signs and symptoms:

- Dryness of mouth
- Aversion to Food
- Pain over the region of chest to vertex
- Tremor and Sweating
- Chest pain
- Blurred vision
- Cough, wheezing
- Sleep disturbances
- Mental incoordination and horrible dreams
- Vomiting
- Giddiness

In the text, "*Nandeesar Agaala marana nool*" indicates the features of over intoxication of alcohol are as follow

"சார யம்குடித் ததிகரித்தால் சர்த்தல் பேதி யிவைகண்டு
பூரா யமாயே வியர்த்தெழும்பி போதம் குலைந்து கிடந்துருளும்
வுரா யிதனைத் தீரப்பதற்கு வருமுள் ள்ங்கிச்சாற் தானதியே
ஆராய்ந் தெடுத்து படிகாரம் அதன்மே லிட்டு கொடுப்போம்"

Over consumption of alcohol leads to diarrhea, hyperhidrosis, vomiting, loss of consciousness

“சார யத்தைத்க் தானருந்தித் தலைமேல் விசமே யேறிடுகில்
சீரார் நடையும் கால்பின்னி சிறந்த முகமும் சீறியவர்
பாரார் கண்ணும் விழிமசகி பார்வை சிவநீது வாய்புலம்பி
ஆரா ரென்ன சொன்னாலும் அறிவு பிசகி யலறிடுமே”

giddiness, irrelevant movements, face becomes reddish, blabbered and irrelevant speech and mental disturbances are due to over in taking of alcohol

“ஆலறி விழுந்து மேல்மூச்சாய் அமறும்சவாச மடங்கிவிடும்
சுவறி கபமும் கோழையுறும் சுற்றும் நுரைபதை தாந்தள்ளும்
விளரி முகமே பஞ்சிட்டு விழிமே லிட்டு விண்பார்க்கும்
முளறி சரக்கின் வாடையுறும் மூக்கில் வாயில் தோன்றிடும்”

The person shouts and fall down unconsciously respiration becomes shallow and feeble, cough with sputum is common, Giddiness, frothy saliva, pallor and eyes looking upwards, The sting odor of alcohol from mouth and nose.

“தோன்றும் சரக்கு நெஞ்சின்மேல் துலங்கி நின்று வாடையுறும்
தோன்றும் கண்ணில் ரெத்தநிறம் தலையுங்குழையும் வாயுறூதும்
தோன்றும் நாவும் பலகறுத்து துரப்பா யிரைப்பை வீரத்துநிற்கும்
தோன்றும் மிக்குறி கண்டறிவீர் துடர்ந்த வாற்றின் குறியென்றே”

Eyes becomes reddish, loss of neck control, bloating of abdomen, blackish discoloration of tooth and tongue.

Mathathyam:

It is otherwise known as mathaazhivu, mathakeedu. In this disease vinthunaatham , kaamaneer ,kozhuppu are defeatected leads to defeat health. It classified into vaatham, pitham, kabham and mukkutram based on three humoural divisions. In addition to Udarkedu (Thummicham) and Vanmai kedu (Vichayam) were also included. So totally6 in divisions

1. **Vali matha azhivu:**

   Sleeplessness, Difficulty to Breathing, headache, involuntary movements, bad dreams, speaking with devil or demons are clinical features of vali matha azhivu

2. **Pitha matha azhivu:**

   Greenish or yellowish discoloration of body, cheeks and eyes became reddish, Fever, burning eyes, sweating, loose stools, thrust, mental disturbances more common

3. **Kapha matha azhivu:**

   Chest discomfort, over sleeping, vomiting, swelling of the body

4. **Mukuttra matha azhivu:**

   It may show companied features of vali, azhal, iya matha azhivu

5. **Udarkedu:**

   This is occurs by over intake of alcohol and non-veg products, phlegm accumulation in mouth, dryness of chest, over sleeping and laziness are findings of the characters of this disease. This progress to degeneration of the body thus termed as udarkedu

6. **Vanmai Kedu**:

   Acute pain in the region of body, vertex and chest, congested feeling of throat region, tiredness, cough thirst, vomiting, pyrexia are the other common features. This progress to diminution of health and emaciation of the body thus termed as vanmai kedu

SECONDARY DISEASE ASSOCIATED WITH KUDIVERI NOI:

1) Madhu irumal (Kal Irumal) :(Cirrhosis of liver with portal hypertension)

"மயங்கியே உடம்பெங்குந் தினவு மாகும்
மார்பொடு நென்சுலர்ந்து கண்டம் வற்றும்
அடங்கியே அடிக்கடி இருமலாகும்
அடிமூலம் நாபிமட்டும் வேக்காடுண்டாம்
வியங்கியே ஈரால்லாம் வெதும்ப லாகும்
விரணமுண்டாய் சிரசோடு மிரட்சி யாகும்
சயங்கியே சாராயங்க் கள்ளு தன்னால்
தாக்குமேமதுவென்ர விருமற்றானே"

Excessive intake of arrack, alcohol will produce itching in whole body, Ulcer formation in throat, gums and stomach by local irritation, General weakness also seen

2) Mantha katti (Alcoholic liver disease)
3) Unmatham (Hallucination)

   According to Yogi vaithiya chinthamani, alcoholism is one of the cause of unmantham

4) Serukku noi (Cognitive impairment)
5) Pakkavaatham (Hemiplegia)

Naadi (pulse) variation due to alcoholism:

"குறையாக ஸ்திரிபோகர் நெடுநோ யாளர்
குதிரைமத கரியேறி நடந்தோர் எய்த்தோர்
நிரவாக உண்டெழுந்தோர் லாகிரி கொண்டோர்
நீரப்பாடு நீரிழிவு குறைநோ யுற்றோர்
முறையாகவீக்கமுள்ளார்அத்திக்காய்வால்
முசித்திளைத்தோர்பயமுற்றோர் விடமணைந்தோர்
அறையாம லோட்டமுற்றொர் கிலேசங்கொண்டோர்
அறப்புசித்தோர்தாதுவகுப் புறமாட்டாதே"

The above lines are indicating that pulse can't identified in an alcoholic

Identification of corpse to find the signs of death due to alcoholism:

"வாற்றைக் குடித்து மடிந்தவரை வகையாய் கண்டே யறிவதற்கு
போற்றும் பிண்டத்தன் நிலையறிந்து புவியோ ரறியப் புகல்வதற்கு
நீற்றைப் புனைந்தோன் தன்னருளால் நினைவா யுடலை சோதித்து
சாற்றும் பிங்குண மொத்திருந்தால் சலியா துரைப்பீர் சான்றோரே"

கண்ணும் சிவந்து முகஞ்சீறி காணுங்கபமும் கோழைதாய்
விண்ணே பார்த்து விழிநிற்கும் வேகம் மிகுந்து கரும்பித்தம்
தன்னே வடியும் வாயில் நின்று தருமே வாடை புலால்போலால்
பின்னே குறியும் சுருங்கிடும் பேசும் குடியால் மரித்தென்னை

-நந்தீசர் அகால மரணநூல்

Reddish eyes, watery sputum expelled from mouth, upward looking eyes, hemoptysis with foul smelled froth and shrunken of male

Types of Kal(Toddy):

There are so many toddies are used for abuse and medicines also

1)Thenangal (coconut toddy):

காத்விக் தூறு களிர்பாண் டொடுசோபை
வாதபித் தங்கிராணி வங்கரப்பான் - பேதியிவை
பொங்கி யதிகரிக்கும் புத்திகீடு மேகமுண்டாக்
தெங்கின்மது விற்கென்றே செப்பு

\- பதார்த்த குண சிந்தாமணி

Consumption of coconut toddy leads to Anaemia, dropsy, vatha pitha disease, dysentery, eczema, confusion of mind.

Action:

Aphrodisiac When this toddy becomes sour it increases Aphrodisiac activity and loss of hearing and frequent consumption of coconut toddy for long time leads to many diseases.

2) Panangal (palm toddy):

விந்துதிர முறுமதி வெப்புடனே தாகம்போம்
பந்தமாக் தாதுவுமோ பாரிக்கும்-முந்துபித்தக்
தோன்றும்பா ஷாண்ங்கள் சுத்தியுமாந் தோகைமின்னே
யேன்ற பனைமதுவிற் கே

-பதார்த்த குண சிந்தாமணி

Palm toddy used to cure body heat. It gives strength to seven body constitutions and also used for aphrodisiac action. Some of the toxic substance like veeram, pooram is purified by using palm toddy.

3) Eachangal (Toddy of date palm):

வெப்பகலு மெய்குளிரு மேகங் கிரிஸ் சரம்போஞ்
செப்பருசி போம்பித்தம்ஞ் சேருங்கா-ணெப்படியும்
பூச்சு திமிருண்டாம் பொங்கறிவுங் கெட்டிமே
யிச்ச மதுவதனுக் கே

-பதார்த்த குண சிந்தாமணி

Eachangal reduces body heat, incontinence of urine, tasteless and swelling.

4)Athhi kal (Fig toddy):

Suvai : Innipu
Thanmai : thatpam
Pirivu : Innipu
Seikai : udal thetri.

அத்திமே கஞ்சூ டதிமயக்கந் தாகமும் போம்
அத்திம் வேரிலுண் டாமதில்- நித்தியமுஞ்
சீனியேனும் பேயன் செங்கனியே நுங்கலந்தே
பானுவுத யங்குடித்துப் பார்

-அகத்தியர் குணவாகடம்

The toddy secretion from the root of fig tree along with sugar or banana is consumed in the early morning reduces the body heat, giddiness, thirst and bone disorders. They are also used as adjuvants.

Medicinal uses of Toddy:

Toddy which is obtained from the plants are used in aliments and as an Immuno boosters, to get relief from cold weather.

Adjuvants:

Toddy is used as adjuvants for some of the medicines like Eggu parpam, Ayakantha chenduram, Ayaparpam, velli chenduram, kanthaga parpam.

Role of toddy in detoxification:

It is used as antidote for some of the toxic substances like Veeream (Hydrargyrum perchloride corrosive sublimate)

Quality analysis of parpam:

To define the quality of Eggu parpam which is made, according to the methods of sage Theran the prepared medicine is added to any one of panangal, thengal & echangal, which turn toddy to juice.

Diet regiment:

Panangal, thennagal,eachengal and country arrack is used as a dietary regiment along with higher form of medicines is given for the treatment. eg. Sarvavidathodari, Ayam and Rasa parpam .

Adverse effects of toddy:

பாலைக் குடியானாள் பார்வையென வட்டநிசிப்
பாலைக் குடியானாள் பற்றுமெயிற் - பாலைஸ்
சுரையையுண்டா மெய்யென் றுந் துன்பந் துளைக்க
சுரையையுண்டா மெய்யென்று சொல்

-தேரையர் யமக வெண்பா

When it is illegitimately or excessively used it leads to kudiveri noi.

Thirukural-(kallunamai):

Saint Thiruvalluvar's divine work "Thirukural"emphasizes the advice effects of consuming alcohol beverage, which is not only affects the health and also affects social well-being.

உட்கப் படாஅர் ஒளியிழப்பர் எஞ்ஞான்றும்
கட்காதல் கொண்டொழு வார்

Those who always thirst after drink will neither inspire fear (in others) nor retain the light (of their same).

கையறியாமை யுடைத்தே பொருள் கொடுத்து
மெய்யறி யாமை கொளல்

” To give money and purchase unconsciousness is the result of one’s ignorance of (one’s own actions)

களித்தானைக் காரணம் காட்டுதல் கீழ்நீரக்
குளித்தானைத் தீத்துரீஇ யற்று

Reasoning with a drunkard is like going under water with a torch in search of a drowned man.

ஈன்றாள் முகத்தேயும் இன்னாதால் என்மற்றூச்
சான்றோர் முகத்தக் களி

Intoxication is painful even in the presence of (ones) mother what will it not then be in that of the wise

Historical reference regarding usage of alcohol:

The preparation on made with fig flower, palm jaggry along with some ingredients were used as toddy fow mirth

“தாகதிப் பூவுங்கட்டி மிட்டு
மாற்றுங்கூட்ட மதுக்களி பிறந்தாங்கு

- மணிமேகலை

MUKKUTTRAVERUPADUGAL:

Human body is influenced by three Thaathus (Vital humours) such as Vaatham, Pitham and Kapham. They are responsible for normal physiological conditions of the body.

InKudiveri Noi (KVN), the following Mukkutram are commonly affected,

Vaatham:

1. Abanan - Habitual Constipation/ diarrhoea
2. Uthanan - Nausea, vomiting
3. Viyanan - Weakness, tremor.
4. Samanan - Due to other vaayus, it is affected
5. Kirukaran - Loss of appetite
6. Devathathan - Insomnia, Irritability, Agitation

Pitham:

1.Aakkanal - Indigestion of food

2. Vanna eri - Paleness/ yellowish discoloration of the conjunctiva and tongue

3.Aatralangi - Depression, Confusion, Fear, loss of employment, Isolation from family

4.Olloli thee - Dryness and roughness of skin

Kabam:

1. Neerpiyaiyam - Loss of appetite
2. Niraivaiyam - Burning sensation of eyes may be present
3. Ondriyaiyam - Joint pain present in very few cases

Udalthathukkal:

Our body consists of seven Udal thathukkal(body constitution). It gives strength and structure to our body. In Kudiveri noi patients, Saaram, Senneer, Kozhuppu and Enbu are commonly affected.

1. Saaram : Dryness, roughness, tiredness
2. Senneer :Hyperpigmented patches may present
3. Kozhuppu :Polycythaemia can occur
4. Enbu : Joint pain present in few cases

Udalvanmai:

It is classified into 3 types, they are,

1) Iyarkai Vanmai Natural immunity of the body by birth

2) Seyarkai Vanmai Improving the health by intake of nutritious food materials and medicines.

3)Kaala VanmaiDevelopment of immunity according to age and the environment.

Imporigal:

1) Mei - Roughness of the skin.

Kanmenthriyam :

1)Vaai(mouth) -Slurred speech

2) Eruvaai(Anal orifice) -diarrhoea

3) Karuvai(genital orifice) - Impotency

Piniyariyum Muraimai (Diagnostic Methods):

Piniyariyum muraimai is the method of diagnosing disease. It is based on the following principles:

- Poriyal aridhal - Inspection
- Pulanal aridhal - Palpation
- Vinaathal - Questionaries

Poriyal aridhal and Pulanal aridhal means examining the patient's Pori and Pulan with that of physician's Pori and Pulan. Vinaathal is a method of enquiring about the details of the patient's

problem from his own words or from his parents or attenders who are taking care of the patient, when the patient is not able to speak (or) if the patient is a child.

ENVAGAI THERVUGAL (Eight tools of examination) are:

நாடிப்பரிசம் நாநிறம் மொழிவிழி
மலம் மூத்திரமிவை மருத்துவராயுதம்

Naadi (Pulse):

In Kudiveri noi, the following types of Naadi could be felt.

They were,

a) Pithavaatham

b) Vaathakabam

c) Pithakabam

Sparism(Touch) **:** Dry skin may be occur.

Naa(tounge) **:** Abnormality of tongue like pale/ yellowish tongue may be noted

Niram(Colour) **:** No abnormalities were observed.

Mozhi(Speech) **:** Slurred speech in chronic case.

Vizhi(Sight) **:** Yellowish/ red eyes may be noted.

Malam(Feces) **:** Diarrhea was reported in some cases.

Moothiram(Urine) **:** Collection of urine for the determination of Neerkkuriand Neikkuri, is an important diagnostic method

a) Neerkkuri

Prior to the day of urine examination, the patient is instructed to take a balanced diet. The patient should have good sleep. After waking up in the morning, the first urine voided is collected in a clear wide mouthed glass container and is subjected to analysis of “Neerkkuri” within one and a half an hour. In Kudiveri noipatients, straw colored urine was noticed.

b)**Neikkuri** :

The collected specimen (Urine) is kept open in a glass dish or china clay container. It is to be examined under direct sunlight, without any shaking of the vessel.Then add one drop of gingelly oil without disturbing the urinary specimen and the neikkuri was noted in direct sunlight and conclude the diagnosis as follows,

Character of Vathaneer

அரவென நீண்டினஃதே வாதம்

When the oil drop spreads like a snake, it is called “Vaatha neer”

Character of Pithaneer

ஆழி போற்பரவின் அஃதே பித்தம்

When the oil drop spreads like a ring, it is called “Pitha neer”

Character of Kabaneer

முத்தொத்து நிற்கின் கபம்

When the oil drop appears like a pearl, it is called “Kaba neer”

Character of Thonthaneer Snake in the ring, ring in the snake, snake in the pearl and ring in the pearl are the characters of Thontha neer. In Kudiveri, the Neikkuri was Vaatha neer, Pitha neer and Kaba neer.

LINE OF TREATMENT

“நோய்நாடி நோய்முத நாடி யதுதணிக்கும்
வாய்நாடி வாய்ப்பச் செயல்”

- திருவள்ளுவர்

Thiruvalluvar says in “Thirukkural” about physician’s duty to study the disease, study the cause, seek subsiding ways and do what is proper and effective.

உற்றவன் தீர்ப்பான்மருந்துழை செல்வானென்
றப்பானாற் கூற்றே மருந்து

In Siddha system of medicine, the main aim of the treatment is to cure illness of body and mind. Treatment is not only for perfect healing but also for prevention and rejuvenation

.

- ❖ உள்மருந்து
- ❖ பத்தியம்

Internal Medicine: *Inji choornam* 2gm, two times a day with warm water.

Anubanam:

அனுபானத்தாலே யவிழ்தம் பலிக்கும்
இனிதான சுக்குஇஞ்சி-பினுமுதுகால்
கோமயம்பால் முலைப்பால் கோனெய்தேன் வெற்றிலைநீர்
ஆமிதையா ராய்ந்து செய்யலாம்

- தேரையர் வெண்பா

Pathiyam (Dietary Regimen):

In mild conditions of the disease, salt and tamarind can be taken in little quantities. When the condition is severe, tamarind should be avoided and salt must be consumed after frying

“பத்தியத்தைனாலே பலனுண்டாகும் மருந்து
பத்தியங்கள் போனால்பலன் போகும் பத்தியத்தில்
பத்தியமே வெற்றி தரும் பம்டிதர்க்கு ஆதலினால்
பத்தியமே உத்தியென்றுபால்

- தேரையர் வெண்பா

பெருகுஞ்சோள மிறுங்கும் பெரும்கம்பு
வரகு காருடன் வாழையின் காயொடு
உரைகொள் பாகற் கெளிற்றுமீன் உண்டிடில்
விரிவ தாய்க்கரப் பானுமிகுந்ததே

-பதார்த்த குண சிந்தாமணி

புளிதுவர் விஞ்சு கறியார் புரிக்கும் வாதம்

-பதார்த்த குண சிந்தாமணி

MODERN ASPECTS

ALCOHOLISM:

Alcoholism is a broad term for problems with alcohol and is generally used to mean compulsive and uncontrolled consumption of alcoholic beverages, usually to the detriment of the drinker's health, personal relationships, and social standing. Alcohol misuse has the potential to damage almost every organ in the body, including the brain. The cumulative toxic effects of chronic alcohol abuse can cause both medical and psychiatric problems. Long-term consumption of alcohol in large quantities induces a number of disorders, e.g. fatty liver, alcoholic hepatitis, hepatocirrhosis, gastrointestinal disorder, chronic pancreatitis, peripheral nerve disorder, irregular heartbeat, hypertension and hematopoiesis disorder. Long-term alcohol consumption also causes phrenopathy and social effects, such as violent crimes and traffic accidents.

Epidemiology:

Substance use disorders are a major public health problem facing many countries. The most common substance of abuse/dependence in patients presenting for treatment is alcohol. In the United Kingdom, the number of 'dependent drinkers' was calculated as over 2.8 million in 2001. About 12% of American adults have had an alcohol dependence problem at some time in their life. The World Health Organization estimates that about 140 million people throughout the world suffer from alcohol dependence. In the United States and Western Europe, 10 to 20 percent of men and 5 to 10 percent of women at some point in their lives will meet criteria for alcoholism. Within the medical and scientific communities, there is broad consensus regarding alcoholism as a disease state. Alcoholism has a higher prevalence among men, though in recent decades, the proportion of female alcoholics has increased. Current evidence indicates that in both men and women, alcoholism is 50–60 percent genetically determined, leaving 40–50 percent for environmental influences. Most alcoholics develop alcoholism during adolescence or young adulthood.

Predisposing factor:

The biological mechanisms that cause alcoholism are not well understood.

- Social environment
- Stress
- Mental health
- Family history
- Age
- Ethnic group
- Gender Signs and symptoms

Early signs:

The risk of alcohol dependence begins at low levels of drinking and increases directly with both the volume of alcohol consumed and a pattern of occasionally drinking larger amounts. Young adults are particularly at risk.

Long-term misuse:

Some of the possible long-term effects of ethanol an individual may develop tolerance to alcohol and withdrawal symptoms. Additionally, in pregnant women, alcohol can cause fetal alcohol syndrome. Alcoholism is characterized by an increased tolerance and physical dependence on alcohol, affecting an individual's ability to control alcohol consumption safely. These characteristics are believed to play a role in impeding an alcoholic's ability to stop drinking. Alcoholism can have adverse effects on mental health, causing psychiatric disorders and increasing the risk of suicide. The onset of depression is a common symptom.

Physical:

Long-term alcohol abuse can cause a number of physical symptoms including,

- Cirrhosis of the liver,
- Pancreatitis,
- Epilepsy
- Polyneuropathy,
- Alcoholic dementia,

- Heart disease,
- Nutritional deficiencies
- Peptic ulcers
- Sexual dysfunction

Other physical effects include an increased risk of developing cardiovascular disease, malabsorption, alcoholic liver disease, and cancer. Damage to the central nervous system and peripheral nervous system can occur from sustained alcohol consumption. A wide range of immunologic defects can result and there may be a generalized skeletal fragility, in addition to a recognized tendency to accidental injury, resulting a propensity to bone fractures.

Psychiatric:

Long-term misuse of alcohol can cause a wide range of mental health problems. Severe cognitive problems are common; approximately 10 percent of all dementia cases are related to alcohol consumption, making it the second leading cause of dementia. Excessive alcohol use causes damage to brain function, and psychological health can be increasingly affected over time. Social skills are significantly impaired in people suffering from alcoholism due to the neurotoxic effects of alcohol on the brain, especially the prefrontal cortex area of the brain. The social skills that are impaired by alcohol abuse include impairments in perceiving facial emotions, prosody perception problems and theory of mind deficits; the ability to understand humor is also impaired in alcohol abusers. The most prevalent psychiatric symptoms are anxiety and depression disorders. Psychiatric symptoms usually initially worsen during alcohol withdrawal, but typically improve or disappear with continued abstinence.

Social effects:

The social problems arising from alcoholism are serious, caused by the pathological changes in the brain and the intoxicating effects of alcohol. Alcohol abuse is associated with an increased risk of committing criminal offences, including child abuse, domestic violence, rape, burglary and assault.

Alcoholism is associated with loss of employment, which can lead to financial problems. Drinking at inappropriate times and behavior caused by reduced judgment, can lead to legal consequences, such as criminal charges for drunk driving or public disorder, or civil penalties for tortious behavior, and may lead to a criminal sentence. An alcoholic's behavior and mental impairment while drunk, can profoundly affect those surrounding them and lead to isolation from family and friends. This isolation can lead to marital conflict and divorce or contribute to domestic violence. Alcoholism can also lead to child neglect, with subsequent lasting damage to the emotional development of the alcoholic's children. For this reason, children of alcoholic parents can develop a number of emotional problems.

Alcohol withdrawal:

Alcohol withdrawal syndrome consists of unpleasant physical and mental symptoms following the cessation of alcohol consumption. Repeated withdrawal episodes may contribute to the development of alcohol dependence and to the negative health consequences of drinking. The withdrawal syndrome is largely due to the central nervous system being in a hyper-excitable state. The severity of the alcohol withdrawal syndrome can vary from mild symptoms such as mild sleep disturbances and mild anxiety to very severe and life threatening including delirium, particularly visual hallucinations in severe cases and convulsions.

- Alcoholic hallucinosis
- Anorexia
- Agitation
- Anxiety and panic attacks
- Catatonia
- Confusion
- Delirium tremens
- Depersonalization
- Depression
- Derealization
- Diaphoresis
- Diarrhoea

- Euphoria
- Fear
- Gastrointestinal upset
- Hallucinations
- Headache
- Hypertension
- Hyperthermia (fever)
- Insomnia
- Irritability
- Migraines
- Nausea and vomiting
- Palpitations
- Psychosis
- Rebound REM sleep
- Restlessness
- Seizures and death
- Tachycardia
- Tremors
- Weakness

Kindling:

Kindling is the phenomenon where repeated alcohol detoxifications lead to an increased severity of the withdrawal syndrome. Those experiencing previous detoxification are more likely to have more medically complicated alcohol withdrawal symptoms. Kindling can cause complications and may increase the risk of relapse, alcohol-related brain damage and cognitive deficits. Chronic alcohol misuse and kindling via multiple alcohol withdrawals may lead to permanent alterations in the GABA receptors. The mechanism behind kindling is sensitization of some neuronal systems and desensitization of other neuronal systems which leads to increasingly gross neurochemical imbalances. This in turn leads to more profound withdrawal symptoms including anxiety, convulsions and neurotoxicity.

Binge drinking is associated with increased impulsivity, impairments in spatial working memory and impaired emotional learning. These adverse effects are believed to be due to the neurotoxic effects of repeated withdrawal from alcohol on aberrant neuronal plasticity and cortical damage. Repeated periods of acute intoxication followed by acute detoxification has profound effects on the brain and is associated with an increased risk of seizures as well as cognitive deficits. The effects on the brain are similar to those seen in alcoholics who have been detoxified multiple times but not as severe as in alcoholics who have no history of prior detox. Thus, the acute withdrawal syndrome appears to be the most important factor in causing damage or impairment to brain function. The brain regions most sensitive to harm from binge drinking are the amygdala and prefrontal cortex.

Alcoholics who have had two or more alcohol withdrawals show more frontal lobe cognitive dysfunction than alcoholics who have experienced one or no prior withdrawals. Kindling of neurons is the proposed cause of withdrawal related cognitive damage. Kindling from multiple withdrawals leads to accumulating neuroadaptation changes. Kindling may also be the reason for cognitive damage seen in binge drinkers.

Protracted withdrawal:

A protracted alcohol withdrawal syndrome occurs in many alcoholics where withdrawal symptoms continue beyond the acute withdrawal stage but usually at a subacute level of intensity and gradually decreasing with severity over time. This syndrome is also sometimes referred to as the post-acute withdrawal syndrome. Some withdrawal symptoms can linger for at least a year after discontinuation of alcohol. Symptoms can include a craving for alcohol, inability to feel pleasure from normally pleasurable things (also known as anhedonia), clouding of sensorium, disorientation, nausea and vomiting or headache. Insomnia is also a common protracted withdrawal symptom which persists after the acute withdrawal phase of alcohol. Insomnia has also been found to influence relapse rate.

Insomnia can be difficult to treat in alcoholics because many of the traditional sleep aids (e.g. benzodiazepine receptor agonists and barbiturate receptor agonists) work via a GABA receptor mechanism and are cross tolerant with alcohol.

Alcoholic liver disease:

The causal association between alcohol intake and the development of alcoholic liver disease has been well demonstrated. It is presumed, therefore, the other factors, such as gender, genetic background and additional environmental influences, particularly chronic viral infection, play a role in the genesis of alcoholic liver disease. The spectrum of liver damage caused by alcohol is not uniform. For descriptive purposes, three main histological stages are described as if they constitute separate and definitive lesions: steatosis, acute alcoholic hepatitis and cirrhosis. In reality, these entities overlap, and it is difficult to find them isolated in their pure histopathological form. Steatosis is a predictable histological abnormality which develops in many heavy drinkers. It results from the redox imbalance generated by the metabolism of ethanol to acetate. Alcoholic steatosis completely reverses within several weeks of discontinuation of alcohol intake. Acute alcoholic hepatitis is characterized by hepatocellular injury with associated inflammation and fibrosis.

Hepatitis usually improves with abstinence. When alcohol use continues unabated, inflammation triggers fibro genesis and over time, collagen is deposited in a characteristic perivenular and peri cellular distribution. Approximately 40% of patients with this lesion (zone 3 fibrosis extending in a lattice-like peri-hepatocyte network) will develop cirrhosis within 5 years. Severe acute alcoholic hepatitis has a poor outcome with standard supportive management. For example, the mortality rate of patients with severe alcoholic hepatitis in two prospective studies was 35% and 46%, respectively. The addition of acute renal failure worsens the prognosis further.

Alcoholism stages:

- **Pre-alcoholic phase**, which includes social drinking when drinkers often start to develop a tolerance for alcohol and drink to relieve stress or feel better
- **Prodromal phase**, also considered the early-alcoholic stage where blackouts begin to occur, the drinker begins to drink alone and in secret and thinks about alcohol frequently while their alcohol tolerance continues to grow
- **Crucial phase** characterized by a spiral of out-of-control drinking at inappropriate times and problems with daily life and relationships as well as physical changes to the brain and body
- **Chronic phase** which includes daily drinking, drinking as the main focus of life, health problems cropping up, cravings and withdrawal symptoms, and physical and mental long-term alcohol abuse issues

Pathophysiology:

Chronic use of alcohol leads to changes in brain chemistry especially in the GABAergic system. Various adaptations occur such as changes in gene expression and down regulation of GABA receptors. During acute alcohol withdrawal, changes also occur such as upregulation of alpha 4 containing GABA receptors and down regulation of alpha1 and alpha3 containing GABA receptors. Neurochemical changes occurring during alcohol withdrawal can be minimized with drugs which are used for acute detoxification. With abstinence from alcohol and cross tolerant drugs these changes in neurochemistry gradually return towards normal. Adaptations to the NMDA system also occur as a result of repeated alcohol intoxication and are involved in the hyper-excitability of the central nervous system during the alcohol withdrawal syndrome. Homocysteine levels which are elevated during chronic drinking increase even further during the withdrawal state and may result in excito-neurotoxicity. Alterations in ECG, in particular an increase in QT interval, and EEG abnormalities including may occur during early withdrawal. Dysfunction of the hypothalamic–pituitary–adrenal axis and increased release of corticotropin-releasing hormone occur during both acute as well as protracted

abstinence from alcohol and contribute to both acute and protracted withdrawal symptoms. Anhedonia/dysphoria symptoms, which can persist as part of a protracted withdrawal may be due to dopamine under activity.

Diagnosis:

Identifying alcoholism is difficult for the individual afflicted because of the social stigma associated with the disease that causes people with alcoholism to avoid diagnosis and treatment for fear of shame or social consequences. The evaluation responses to a group of standardized questioning is a common method for diagnosing alcoholism. These can be used to identify harmful drinking patterns, including alcoholism. In general, problem drinking is considered alcoholism when the person continues to drink despite experiencing social or health problems caused by drinking.

International Classification of Diseases (ICD-10):

International Classification of Diseases and Health Related Problems (ICD10;1992) defines the (alcohol) dependence syndrome as "a cluster of behavioral, cognitive and physiological phenomena that develop after repeated (alcohol) use and that typically include a strong desire to take (alcohol), difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state .

American Medical Association diagnosis:

The American Medical Association supports a dual classification of alcoholism to include both physical and mental components.

DSM diagnosis:

Under the DSM's new definition of Alcoholism about 37 percent of college students may meet the criteria. Doctors are hoping that this new definition of the term will help catch severe cases of alcoholism early, instead of when the problem is full-blown. The DSM-IV diagnosis of alcohol dependence represents one approach to the definition of alcoholism. In part this is to assist in the development of research protocols in which findings can

be compared to one another. According to the DSM-IV, an alcohol dependence diagnosis is: maladaptive alcohol use with clinically significant impairment as manifested by at least three of the following within any one-year period: tolerance; withdrawal; taken in greater amounts or over longer time course than intended; desire or unsuccessful attempts to cut down or control use; great deal of time spent obtaining, using, or recovering from use; social, occupational, or recreational activities given up or reduced; continued use despite knowledge of physical or psychological sequelae.

Screening:

Several tools may be used to detect a loss of control of alcohol use. These tools are mostly self-reports in questionnaire form. Another common theme is a score or tally that sums up the general severity of alcohol use. The CAGE questionnaire, named for its four questions, is one such example that may be used to screen patients quickly in a doctor's office.

Two yes responses indicate that the respondent should be investigated further. The questionnaire asks the following questions:

1. Have you ever felt you needed to Cut down on your drinking?
2. Have people Annoyed you by criticizing your drinking?
3. Have you ever felt Guilty about drinking?
4. Have you ever felt you needed a drink first thing in the morning (Eye-opener) to steady your nerves or to get rid of a hangover?

The CAGE questionnaire has demonstrated a high effectiveness in detecting alcohol-related problems; however, it has limitations in people with less severe alcohol related problems, white women and college students. Other tests are sometimes used for the detection of alcohol dependence, such as the Alcohol Dependence Data Questionnaire, which is a more sensitive diagnostic test than the CAGE questionnaire. It helps distinguish a diagnosis of alcohol dependence from one of heavy alcohol use. The Michigan Alcohol Screening. Test (MAST) is a screening tool for alcoholism widely used by courts to determine the appropriate sentencing for people convicted of alcohol-related offenses, driving under the influence being the most common. The Alcohol Use Disorders Identification Test (AUDIT), a screening questionnaire developed by the World Health Organization, is unique in that it has been

validated in six countries and is used internationally. Like the CAGE questionnaire, it uses a simple set of questions – a high score earning a deeper investigation. The Paddington Alcohol Test (PAT) was designed to screen for alcohol-related problems amongst those attending Accident and Emergency departments. It concords well with the AUDIT questionnaire but is administered in a fifth of the time.

Urine and blood tests:

There are reliable tests for the actual use of alcohol, one common test being that of blood alcohol content (BAC). These tests do not differentiate alcoholics from non-alcoholics;

however, long-term heavy drinking does have a few recognizable effects on the body, including:

- Macrocytosis (enlarged MCV)
- Elevated GGT
- Moderate elevation of AST and ALT and an AST: ALT ratio of 2:1
- High carbohydrate deficient transferrin (CDT) However, none of these blood tests for biological markers is as sensitive as screening questionnaires.

Treatment

Benzodiazepines are effective for the management of symptoms as well as the prevention of seizures. Treatment of alcohol withdrawal syndrome can be managed with various pharmaceutical medications including barbiturates and clonidine. Certain vitamins are also an important part of the management of alcohol withdrawal syndrome.

DRUG REVIEW

INJI

Botanical name	:	*Zingiber officinale,*
English name	:	Ginger
Family	:	*Zingiberaceae*

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

இஞ்சிக் கிழங்குக் கிருமலையம் ஓக்களம்
வஞ்சிக்குஞ் சன்னி சுரம் வன்பேதி - விஞ்சுகின்ற
சூலையறும் வாதம்போதுந் தூண்டாத தீபனமாம்
வேலையுறுங் கண்ணாய் - விளம்பு

-அகத்தியர் குணவாகடம்

Chemical constituents:

Camphene, Phellandrene, Zingiberene, Cineol, Borneol

Actions:

Aromatic, Carminative, Stimulant to GI Tract, Stomachic, Digestive, Sialagogue

Ealam

Botanical name	:	*Electtaria cardamomum*
English name	:	Cardamom seeds
Family	:	*Zingiberaceae*

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

தொண்டை வாய்கவுள் தாலுகு தங்களில்
தோன்றும் நோயதி சாராம்பன் மேகத்தால்
உண்டை போல்எழுங் கட்டி கிரிச்சரம்
உழலை வாந்தி சிலந்தி விஷஞ்சுரம்
பண்டை வெக்கை விதாகநோய் காசமும்
பாழுஞ் சோமப் பிணிவிந்து நட்டமும்
அண்டை யீளைவன் பித்தம் இவைக்கெல்லாம்
ஆல மாங்கமழ் ஏல மருந்ததே
-அகத்தியர் குணவாகடம்

Chemical constituents:

1,8- cineole, α-terpinyl acetate, Limonene, sabinene, α-terpineol, α-pinene, linalool, 4,8,12- trimethyl, 4,8- dimethyl, 1,2,7,11-tridecatetraene

[Ref. Book: Medicinal plants-Edward Jarald]

Actions:

Anti-inflammatory, Analgesic, Anti spasmodic ,Anti-oxidant, Cholagogue

CHUKKU

Botanical name : *Zingiber officinale,*
English name : Dried Ginger
Family : *Zingiberaceae*

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

சூலைமந்தம் நெஞ்செரிப்பு தோடமேப் பம்மழலை
மூலம் இரைப்பிருமல் மூக்குநீர் - வாலகப
தோடமதி சாரந் தொடர்வாத குன்மநீர்த்
தோடம்ஆ மம்போக்குஞ் சுக்கு
-அகத்தியர் குணவாகடம்

Chemical constituents:

Camphene, Phellandrene, Zingiberene, Cineol, Borneol

Actions:

Aromatic, Carminative, Stimulant to GI Tract, Stomachic, Digestive, Sialagogue

MILAKU

Botanical name : *Piper nigrum*
English name : Black Pepper
Family : *Piperaceae*

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

சீதசுரம் பாண்டு சிலேத்மங் கிராணிகுன்மம்
வாதம் அருசிபித்தம் மாமூலம் - ஓதுசன்னி
யாசமபஸ் மாரம் அடன்மேகம் காசமிவை
நாசங் கறிமிளகினால்

-அகத்தியர் குணவாகடம்

Chemical constituents:

Piperine or Pipirine
Piperidine or Piperidin Chavicin

Actions:

Acrid, Pungent, Carminative, Antiperiodic, Antipyretic, Aphrodisiac

THIPPILI

Botanical name : *Piper longum*
English name : Long pepper
Family : *Piperaceae*

Organoleptic characters:

Taste : Inippu
Potency : Veppam
Division : Inippu

பொதுகுணம்:

கட்டி யெதிர்நின்று கடுநோயெல் லாம்பணியும்
திட்டி வினையகலும் தேகமெத்த - புட்டியாம்
மாமனுக்கு மாமனென மற்றவர்க்கு மற்றவனாய்
காமமெனுந் திப்பிலிக்கும் கை

ஈளை யிருமல லிரைப்புப் பசப்பிணிகள்
மாள வொழியாமல் வாட்டுமே - யாளுமுறை
பாங்கா யறிந்து செய்வீர் பண்டிதத்தைப் பண்டிதரே
வேங்கைவாய் பாங்கணை மெய்

- தேரன் - வெண்பா

Chemical constituents:

Piperine,Fatty oil, Resin, Volatile oil

Actions:

Carminative, Aphrodisiac, Diuretic, Vermifuge, Emmenagogue

KIRAMBU

Botanical name	:	*Syzygium aromaticum*
English name	:	Cloves
Family	:	*Myrtaceae*

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

பித்த மயக்கம் பேதியொடு வாந்தியும்போம்
சுத்தவிரத் தக்கடுப்புத் தோன்றுமோ - மெத்த
இலவங்கங்கொண்டவருக் கேற் சுகமாகும்
மலமங்கே கட்டுமென வாழ்த்து.

சுக்கிலநட்டங்கர்ண சூர்வியங்க லாஞ்சனந்தாட்
சிக்கல்விடாஸ் சர்வா சியப்பிணியு- மக்கிக்குட்
டங்கப் பூவோடுதிரிபடருந் தோன்றிலில்
வங்கப்பூ வோடுரைத்து வா.

-அகத்தியர் குணவாகடம்

Chemical constituents:

volatile oil, .β-caryophyllene, Eugenol acetate, α-humulence, δ-decalactone, fenchone, hexanal, hexanone, methyl palmitate, palustrol, prophyl benzoate. Aceto phenone, benzyl salicylate, α-cardinol.
[Ref. Book: Medicinal plants-Edward Jerald]

Actions:

Carminative, Aphrodisiac, Stimulent, Antispasmotic, Rebufucient, Stomatic, Local Anaesthetic, Anti Septic,Anti carcinogenic, Anti thrombotic, Anti oxidative

OMAM

Botanical name : *Carum copticum*
English name : The Bishops weed
Family : *Apiaceae*

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

சீதசுரம் காசஞ் செரியமந் தம்பொருமல்
பேதியிரைச் சல்கடுப்பு பேராமம்-ஓதிருமல்
பல்லொடுபல் மூலம் பகமிவைநோ யென்செயுமோ?
சொல்லொடுபோம் ஓமமெனச் சொல்
-அகத்தியர் குணவாகடம்

Chemical constituents:

Earoptin, Cumene, Thymene, Aromatic, Volatile Essential Oil

Actions:

Diffusible, Stimulent, Stomachic ,Carminative, Tonic, Aromatic ,Pungent Antispasmodic, Anthelmentic

VALUZHUVAI

Botanical name	:	*Celastrus paniculatus*
English name	:	Climbing staff plant
Family	:	Celastraceae

Organoleptic characters:

Taste : Kaippu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

வயிற்றுக் கடுப்புவலி மாறாக் கிராணி
பயித்தியங்காசமல பந்தஞ்சயிக்கவொணாஸ்
சூதிகா வாதமும் போந் தொல்வா லுளுவைவிதைக்
காதினவ சித்தர் மொழி யாம்

-அகத்தியர் குணவாகடம்

Chemical constituents:

Alkaloids, Glucosides, Tannin, Coloring Matters

Actions:

Rubefacient, Stimulant, Nervine, Stimulate, Intellect And Sharpen Memory

SATHIKKAI

Botanical name : *Myristica fregrans*
English name : Nut meg
Family : *Myrtaceae*

Organoleptic characters:

Taste : Thuvarppu , Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

தாதுநட்டம் பேதி சருவாசி யஞ்சிர நோய்
ஓதுசுவா சங்காசம் உட்கிராணி - வேதோ
டிலக்காய் வரும்பிணி ஏற்றமயல் பித்தங்
குலக்கா யருந்துவர்க்குக் கூறு

-அகத்தியர் குணவாகடம்

Chemical constituents:

Volatile oil, Proteids, Resin, Myristin, Myristic Acid, Myristicene, Myristocol

Actions:

Aromatic, Stimulant, Carminative, Narcotic, Rubefucient, Aperient, Aphrodiasic Intoxicating, Tonic, Digestive, Gastric Tonic

YANAI THIPPILI

Botanical name	:	*Scidapsus officinale*
English name	:	Cardamom seeds
Family	:	Araceae

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

மாதமறு தீபனமா மாறக் கபங்கரப்பான்
ஓதுகுரற் கம்மலியை யோடுங்காண் - பூதலத்திற்
சோனையைநேர் நாசினீர் தோலாச்சு வாசமும்
யானையினற் றிப்பிலிய தால்

-அகத்தியர் குணவாகடம்

Chemical constituents:

Alkaloids, gum, ash

Actions:

Carminative, Stimulant, Tonic, Anthelmintic, Sudorific

SEERAGAM

Botanical name	:	*Cuminum cyminum*
English name	:	Cumin seeds
Family	:	Apiaceae

Organoleptic characters:

Taste : Kaarppu , Inippu
Potency : Thatpam
Division : Inippu

பொதுகுணம்:

பித்தமெனு மந்திரியைப் பின்னப் படுத்தியவன்
சத்துருவை யுந்துறந்து சாதித்து - மத்தனெனும்
ராசனைரு மீவென்று நண்பைப் பலப்படுத்தி
போசனகு டாரிசெயும் போர்

-அகத்தியர் குணவாகடம்

Chemical constituents:

Cuminaldehyde, cuminin,1,3- β menthadien-7-al, 1,4-β menthadien-7-al, δ-terpinene, βpinene,7-1(O- β- D-galalacturonide), 3,5- dihydroxy flavones, glycosides of luteolin and apigenin. [Ref. Book: Medicinal plants-Edward Jarald]

Actions:

Carminative, Aromatic, Stomachic, Stimulant, Astringent, Digestive, Diuretic Emmenagogue

ATHIMATHURAM

Botanical name : Glycyrrhiza glabra Linn

English name : Liquorice

Family : Fabaceae

Organoleptic characters:

Taste :Inippu

Potency :Thatpam

Division :Inippu

பொதுகுணம்:

கத்தியரி முப்பிணியால் வருபுண் தாகங்
கண்ணொய்உன் மாதம்விக்கல் வலிவெண் குட்டம்
பித்தமெலும் புருக்கி கிரிச்சரம் ஆவர்த்த
பித்தமத மூர்ச்சை விட பாகம் வெப்பந்

தத்திவரு வாதசோ ணிதங்கா மாலை
சருவவிடங் காமியநோய் தாது நட்டங்
குத்திருமல் ஆசியங்கம் இத்ழ்நோய் இந்து
குயப்புண்ணும்போம் மதூரகமெனக் கூங்காலே

- தேரயர் குணவாகடம்

Chemical constituents:

Glycyrrhizin, glycyrrhizic acid, Glabraninis A& B, Isoglabrolide, deoxoglabrolide, glabrolide, glycyrrhetol, Liquoric, Liquiritic, glycyrrhetic, glabranine, pinocembrin, prunetin, glucoliquitin apioside, prenyllico flavones A, echinatin.

[Ref. Book: Medicinal plants-Edward Jarald]

Actions:

Anti-hepatotoxic activity, Anti diuretic activity, inhibit tumor producing activity,Anti-viral

KUROSANI OMAM

Botanical name : *Hyoscyamus niger Linn*
English name : Henbane seeds
Family : Solanaceae

Organoleptic characters:

Taste : Kaarppu , Sirukaippu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

வெகு மூத்திரம்வாதம் வீரியம்னட்டம்புண்
உகு பேதி யுட்கடுப்பி நோடே மிகுகரப்பன்
தீரக் கபமிவைபோம் செய்யகு ரோசானியென்றால்
வாரா மயக்கமுறு மால்

-அகத்தியர் குணவாகடம்

Chemical constituents:

Hyoscyamine, Hyoscine, Hyosciprin, scopolamine, cholin, fattyacid, albumin potassium nitrate

Actions:

Intoxicating, Narcotic, Anodyne, Digestive, Astrigent, Anthelmentic, Sedative

AMUKKARA

Botanical name	:	*Withania somnifera*
English name	:	Withania somnifera
Family	:	Solanaceae

Organoleptic characters:

Taste : Kaippu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

கொஞ்சந் துவர்ப்பாங்கொடியகயம் சூலையரி
மிஞ்சுரப் பான்பாண்டு வெப்பத்ப்பு - விஞ்சி
முசுவுறு ஹோடமும்போ மோகம் அன லுண்டாம்
அசுவகந் திக்கென றறி

-அகத்தியர் குணவாகடம்

Chemical constituents:

Somniferin, Phytosterol, Ipuranol, Mixture, Saturated & Un Saturated Acids

Actions:

Tonic, Alternative, Astrigents, Aphrodisiac, Nervine, Sedative

KASAKASAA

Botanical name	:	*Papaver somniferum***.**Linn
English name	:	Opium poppy
Family	:	*Papaver*aceae

Organoleptic characters:

Taste : Inippu
Potency : Veppam
Division : Inippu

பொதுகுணம்:

கிருமி நமைச்சல் கிராணியதி சாரஞ்
சிரநீர் அநித்திரைபோஞ் செப்பில் - உருவழகுங்
காந்தியுமுண் டாகுங் கசகசா விங்குணத்தைத்
தேர்ந்தவர்க்கு விந்துவுமாந் தேர்

-அகத்தியர் குணவாகடம்

Chemical constituents:

Morphine, Codeine, Narcotine

Actions:

Demulcent, Nutritive, Mild Astrigent

ELAVANGA PATHIRI

Botanical name : *Cinnamomum tamal Buch. Hum*

English name : Cassia cinnamon

Family : Lauraceae

Organoleptic characters:

Taste : Kaarppu

Potency : Veppam

Division : Kaarppu

பொதுகுணம்:

மேகசுரம் சீதசுரம் வெட்டசுவாசங்காசம்
தாகபித்தம் வாந்திசர் வாசியனோய் - மேகத்தின்
கட்டியொடு தாதுபட்டங்கைப்பருசி போக்கிவிடும்
இட்ட இலவங்கத்திலை

-அகத்தியர் குணவாகடம்

Chemical constituents:

Essential Oil, Eugenol, Terpene, Cinnamic, Aldehyde

Actions:

Carminative, stimulant, diuretic, diaphoretic, dedobstruent, lactagogue

MODI (THIPPILI MOOLAM)

Botanical name : *Piper longum*
English name : Long pepper
Family : *Piperaceae*

Organoleptic characters:

Taste : Kaarppu
Potency : Veppam
Division : Kaarppu

பொதுகுணம்:

தாகபித்தஞ்சொகந் தணியாச் சுரமிருமல்
மேகங்குரல்கம்மல் மெய்க்கடுப்பும் ஏகுங்க்காண்
திப்பிலிமூலங்கண்டத் த்ப்பிலிய தாம்னறுக்குத்
திப்பிலியென் றேயொருக்காற் செப்பு

-அகத்தியர் குணவாகடம்

Chemical constituents:

Piperine, Fatty oil, Resin, Volatile oil

Actions:

Carminative, Aphrodisiac, Diuretic, Vermifuge, Emmenagogue

KOTHAMALLI

Botanical name : Coriandrum sativm Linn
English name : Coriander seeds
Family : Apiaceae

Organoleptic characters:

Taste : Kaarppu
Potency : Seetha veepam
Division : Kaarppu

பொதுகுணம்:

கொத்துமல்லி வெப்பம் குளிர்காய்ச்சல் பித்தமந்தஞ்
சர்த்திவிக்கல் தாகமொடு தாதுநட்டம் - கத்தியெழும்
வாத விகார்மடர் வனகர்த்த பிவிரணம்
பூதலத்தில் லாதகற்றும் போற்று

-அகத்தியர் குணவாகடம்

Chemical constituents:

Essential Oil, Linolool, Monoterpene Hydrocarbous , Borneol, Citrovellol, Camphor, Geraniol, Geranyl Acetalis, Heterocyclic Components, Coriandrin, Dihyhy Coriandrine, Coriandrones A-E, Flavonoids, Neochidilide, Phenolic Acids, Sterols.
[Ref. Book: Medicinal plants-Edward Jarald]

Actions:

Strong Antifungitoxity, Stomachic Spasmolytic, Carminative, Hydolipidemic, Insulin Releasing, Microbicidal

PERITCHAI

Botanical name	:	*Phonex dactilifera Linn*
English name	:	Date palm
Family	:	Aracaceae

Organoleptic characters:

Taste : Inippu

Potency : Veppam

Division : Kaarppu

பொதுகுணம்:

பேரீந்தெனுங்கனிக்குப் பித்தமத மூர்ச்சைசுரம்
நீரார்ந்த ஐயம் நெடுந்தாகம் - பேரர
இரத்தபித்தநீரிழிவி லைப்பறும் அரோசி
உரத்தமலக் கட்டுமறும் ஓது

-அகத்தியர் குணவாகடம்

Chemical constituents:

Iron in an assimilable form, Tannin, Mucilage, Insoluble Matter and Lime

Actions:

Expectorent, Aphrodisiac, Tonic, Demulcent, Lavative, Diuretc And Highly Saccharine

MUNTHIRIKAI

Botanical name	:	*Vitis vinifera*
English name	:	Grapes
Family	:	Vitaceae

Organoleptic characters:

Taste : Inippu
Potency : Thatpam
Division : Inippu

பொதுகுணம்:

It cures stomach disturbance, dry cough, fever, jaundice, wheezing, thrust, also prevent form heart diseases

Chemical constituents:

Tartaric Acid Citric Acid Racemic Acid and Malic Acid Chlorides of Potassium and Sodium, Potassium Sulphate, Alum, Magnesia, Iron, Ozotised Matters

Actions:

Demulcent, Laxatives, Refrigerant, Stomachic, Diuretic, Expectorant, Nutritious, Blood Purifier

SUGAR

Botanical name	:	*Saccharum officinarum.Linn*
English name	:	Sugarcane
Family	:	*Poaceae*

Organoleptic characters:

Taste : Inippu
Potency : Seetham
Division : Inippu

பொதுகுணம்:

அருந்து மருந்திற் கனுபான மாகப்
பொருந்துமடல் வாந்திபித்தம் போக்கும்
நீக்கு மதிகபத்தை நீற்றுமகிழ்ச்சியுண்ண
டாக்கு நறுஞ்ச்சர்க்க ரை

-அகத்தியர் குணவாகடம்

Chemical constituents:

Trolox, Beta-Carotene, Linoleic Acid, Apigenin, Catechin, Caffeic, Ferulic And Chlorogenic Acids

Actions:

Demulcent, Antiseptic, Cooling, Laxative, Diuretic, Nutrient,

MATERIALS AND METHODS

a) STANDARD OPERATING PROCEDURES OF *INJI CHOORANAM*

Source of trial medicine:

The raw drugs for the preparation of *Inji Chooranam* will be purchased from a well reputed country shop and the purchased drugs will be authenticated by the competent authority (Medicinal botany dept., NIS). After that the raw drugs will be purified separately then the trial drugs will be prepared in Gunapadam Laboratory of National Institute of Siddha.

Raw drugs Identification and authentication:

These ingredients were identified and were authenticated by Dr.D.Aravind M.Sc, Asst Prof, Medicinal Botanist at NIS, Tambaram sanatorium, Chennai.(Drug Authentication Number : Nismb2962017)

Ingredients of Inji *Choornam:*

Inji	(*Zingiber officinale*)	- 350gm	(10 palam)
Ealam	*(Electtaria cardamomum*)	- 8.75gm	(1/4 palam)
Chukku	(*Zingiber officinale*)	- 8.75gm	(1/4 palam)
Milaku	*(Piper nigrum)*	- 8.75gm	(1/4 palam)
Thippili	*(Piper longum)*	- 8.75gm	(1/4 palam)
Kirambu	*(Syzygium aromaticum)*	- 8.75gm	(1/4 palam)
Omam	*(Carum copticum)*	-8.75gm	(1/4 palam)
Valuzhuvai	*(Celastrus paniculatus)*	-8.75gm	(1/4 palam)
Sathikkai	*(Myristica fregrans)*	-8.75gm	(1/4 palam)
Yanai Thippili	*(Scidapsus officinale)*	- 8.75gm	(1/4 palam)
Seeragam	*(Cuminum cyminum)*	- 8.75gm	(1/4 palam)
Athimaduram	*(Glycyrrhiza glabra)*	- 8.75gm	(1/4 palam)
Kurosani Omam	*(Hyoscyamus niger)*	- 8.75gm	(1/4 palam)
Amukara	*(Withania somnifera)*	- 8.75gm	(1/4 palam)
KasaKasaa	*(Papaver somniferum)*	- 8.75gm	(1/4 palam)
Elavanga pathiri	*(Cinnamomum tamal)*	- 8.75gm	(1/4 palam)

Modi	*(Piper longum)*	- 8.75gm	(1/4 palam)
Kothamalli	*(Coriandrum sativum)*	- 8.75gm	(1/4 palam)
Peritchai	*(Phonex dactilifera)*	- 8.75gm	(1/4 palam)
Munthirikai	*(Vitis vinifera)*	- 8.75gm	(1/4 palam)
Sarkarai	(*Saccharum officinarum)*	-350gm	(10 palam)

METHOD OF PURIFICATION:

Inji:

Cleaned & remove outer layer of skin

Ealam:

Dried in sun shade and fried.

Chukku:

Soaked in lime stone water for a period of time and dried it in sun shade then peel off the outer layer.

Milaku:

Soaked in butter milk for a period of 1 saamam (3 hours) then allowed it to dry.

Thippili:

Soaked in Lime juice for a period of time then allow it to dry

Kirambu:

Dried in sun shade and fried

Omam:

Drenched in limestone water and dried.

Valuzhuvai:

Dried in sun shade and fried

Sathikkai:

Remove the outer cover, cut into small pieces and dried in sunshade

Yanai Thippili:

Dried in sunshade. & fried.

Seeragam:

Dried in sunshade & fried.

Athimathuram:

Washed with water and outer layer is pealed, then cut into small pieces, finally dried, cut into small pieces and finally dried it.

Kurosani Omam:

Dried in sun shade and fried

Amukara:

Dried in sun shade and fried

Elavanga pathiri:

Dried in sun shade and fried

Modi (Thippili Moolam)**:**

Dried in sun shade and fried

Kothamalli:

Process it in thula endhiram and dried in sun light.

Peritchai:

Removed the seed,dried sun shade

Munthirikai: Dried in sun shadeand fried

Sugar:

Equal quantity.

Raw drugs of Inji chooranam

INJI

EALAM

CHUKKU

MILAKU

THIPPILI

KIRAMBU

OMAM

VALUZHUVAI

SATHIKKAI

YANAI THIPPILI

SEERAGAM

ATHIMATHURAM

KUROSANAI OMAM

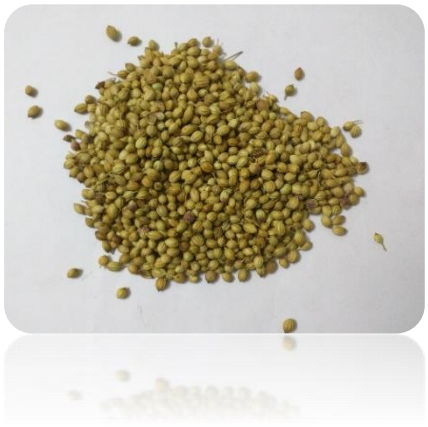
AMUKKURA

KASAKASA

ELAVANGA PATHIRI

MODI (THIPPILI MOOLAM)

KOTTHAMALLI



PERITCHAI

MUNTHIRIGAI

SARKKARAI

Method of preparation:

All the above ingredients are powdered separately. Mixed well together and prepared as choornam.

Drug storage:

The trial drugs ***Inji Choornam*** (Internal) is stored in clean dry container.

BIO-CHEMICAL AND ELEMENTAL ANALYSIS

Qualitative Analysis

Sl. No	EXPERIMENT	OBSERVATION	INFERENCE
1	Appearance of the sample	Brown in Colour	
2	**Solubility:** a. A little of the sample is shaken well with distilled water. b. A little of the sample is Shaken well with con. Hcl Con. H_2SO_4.	Completely soluble Completely soluble	Absence of Silicate
3	**ACTION OF HEAT:** A small amount of the sample is taken in a dry test tube and heated gently at first and then Strong.	White fumes not evolved Brown fumes not evolved	Absence of Carbonate. Absence of Nitrate.
4	**FLAME TEST:** A small amount of the sample is made into a paste with con. Hcl in a watch glass and introduced into non-luminous part of the Bunsen flame	White flame is appeared	Absence of Copper.

5	**ASH TEST:** A filter paper is soaked into a mixture of sample and cobalt nitrate solution and introduced into the Bunsen flame and ignited.	No Yellow colour flame.	Absence of Sodium

Preparation of The Extract

5 gm of *Inji chooranam* was weighed accurately and placed in a 250 ml clean beaker. Then 50 ml distilled water was added and dissolved well. Then it is boiled well for about 10 minutes. It was cooled and filtered in a 100 ml volumetric flask and then it was made up to 100 ml with distilled water. This fluid was taken for analysis.

SL. NO.	EXPERIMENT	OBSERVATION	INFERENCE
TEST FOR ACID RADICALS			
1	**Test for Sulphate:** a. 2 ml of the above prepared extract is taken in a test tube to this added 2ml of 4% ammonium oxalate solution. b. 2ml of the above prepared extract is added with 2 ml of dil-Hcl is added until the effervescence ceases off. Then 2ml of Barium chloride solution is added.	Cloudy appearance present A white precipitate insoluble in con. Hcl is obtained	Presence of Sulphate Sulphate is Confirmed
2	**Test for Chloride:** 2 ml of the above prepared Extract is added with dil. HNO3 till the	Cloudy appearance present (Mild trace element)	Presence of Chloride.

	effervescence ceases. Then 2 ml of silver nitrate solution is added		
3	**Test for Phosphate:** 2 ml of the extract is treated with 2ml of ammonium molybdate solution and 2 ml of con. HNO3	No Cloudy yellow appearance	Absence of Phosphate
4	**Test for Carbonate**: 2m1 of the extract is treated with 2m1 magnesium sulphate solution	No cloudy appearance	Absence of Carbonate.
5	**Test for Nitrate:** 1gm of the substance is heated with copper turnings and concentrated H2SO4 and viewed the test tube vertically down.	Brown gas is not evolved	Absence of Nitrate
6	**Test for Sulphide:** 1 gm of the substance is treated with 2m1 of con. Hcl	No Rotten egg smelling gas evolved	Absence of Sulphide
7	**Test for fluoride & oxalate:** 2 m1 of The Extract Is Added With 2m1of Acetic Acid and 2 m1 calcium Chloride solution and heated	No Cloudy appearance	Absence of Fluoride& Oxalate
8	**Test for Nitrite:** 3drops of extract is placed on a filter paper,on that 2	No characteristic Changes.	Absence of nitrite

	drops of acetic Acid and 2 drops of benzidine solution is placed.		
9	**Test for Borate:** 2 pinches of the substance are made into paste by using sulphuric acid and alcohol (95%) and introduced into the blue flame.		Absence of borate

	II. TEST FOR BASIC RADICALS		
1	**Test for Lead:** 2 m1of the extract is added with 2m1of potassium iodide solution	No Yellow precipitate is obtained	Absence of Lead
2	**Test for Copper:** a. One pinch of substance is made into paste with con. Hcl in a watch glass and introduced into the non-luminous part of the flame. b. 2 ml of extract is added with excess of ammonia solution	No Blue colour flame precipitate No Blue colour precipitate	Absence of Copper. Absence of Copper

3	**Test for Aluminium:** Take the 2m1of the extract sodium hydroxide is added in drops to excess	No characteristic changes	Absence of Aluminium
4	**Test for Iron: (Ferrous)**To the 2 ml of extract 2m1 ammonium thiocyanate solutionand 2m1of con. HNO3 is added	Blood red colour Appearance	Presence of Iron.
5	**Test For Zinc:** To 2m1 of the extract sodium hydroxide solution is added in drops to excess	White precipitate is not Formed	Absence of Zinc
6	**Test For Calcium:** 2m1 of the extract is added with 2m1 of 4% ammonium oxalate Solution	Cloudy appearance and white precipitate is obtained	Absence of Calcium.
7	**Test For Magnesium:** To 2ml of extract sodium hydroxide solution is added in drops to excess.	White precipitate is not obtained.	Absence of Magnesium.
8	**Test For Ammonium:** To 2ml of extract few ml of Nessler's reagent and excess of sodium hydroxide solution are added.	No brown colour appeared	Absence of Ammonium
9	**Test For Potassium:** A pinch of substance is treated with 2ml of sodium nitrite solution and then treated with 2m1 of cobalt	No Yellowish precipitate is obtained	Absence of Potassium

	nitrate in 30% glacial acetic acid		
10	**Test For Mercury:** 2m1 of the extract is treated with 2ml of sodium hydroxide solution.	No Yellow colour Flame appeared.	Absence of Sodium
11	**Test For Mercury:** 2m1 of the extract is treated with 2ml of sodium hydroxide solution	Yellow precipitate is not obtained	Absence of Mercury
12	**Test For Arsenic:** 2m1 of the extract is treated with 2m1 of sodium hydroxide solution.	No brownish red Precipitate is obtained	Absence of Arsenic
III. MISCELLANEOUS			
1	**Test for Starch:** 2ml of extract is treated with weak iodine solution.	No blue colour developed	Absence of Strarch
2	**Test For Reducing Sugar**: 5ml of Benedict's qualitative solution is taken in a test tube and allowed to boil for 2 minutes and added 8 to 10 drops of the extract and again boil it for 2 minutes. The colour changes are noted	No Brick red colour developed	Absence of Reducing sugar
3	**Test For The Alkaloids:** a. 2m1 of the extract is treated with 2ml of potassium Iodide solution. b. 2m1 of extract is treated with 2ml of picric acid. c. 2m1 of the extract is	Red colour developed Trace Yellow colour	Presence of Alkaloid. Trace of Alkaloid present.

	treated with 2ml of phosphotunstic acid.	developed White precipitate developed	 Presence of Alkaloid.
4	**Test for Tannic Acid:** 2ml of extract is treated with 2ml of ferric chloride solution	Black precipitate is obtained	Presence of Tannic acid.
5	**Test for Unsaturated Compound:** To the 2ml of extract 2ml ofPotassium Permanganate solution is added	Potassium Permanganate is decolorized	Presence of Unsaturated Compound.
6	**Test For Amino Acid:** 2 drops of the extract is placed on a filter paper and dried well and 2 ml of biuret reagent is added	No Violet colour developed	Absence of Amino acids.
7	**Test For type of Compound:** 2ml of the extract is treated with 2 ml of ferric chloride solution.	Green colour developed No Red colour developed No Violet colour developed No blue colour developed	Presence of oxy quinole epinephrine and pyro catechol. Anti pyrine, Aliphatic amino acids and Meconic acid are absent. Apomorphine, Salicylate and Resorcinol are absent. Morphine, Phenol cresol and hydro quinone are absent

RESULT:

The Bio-chemical analysis of *Inji chooranam* had shown the presence of Sulphate, Chloride, Phosphate, Reducing Sugar, Iron, Tannic acid, oxy quinol epinephrine and pyro catechol, unsaturated compound and Alkaloids.

b) CLINICAL

STUDY TYPE	:	An Open Clinical Trial.
STUDY PLACE	**:**	Ayothidoss Pandithar Hospital, National Institute of Siddha, Chennai-47.
STUDY PERIOD	**:**	18 months
SAMPLE SIZE	:	30 patients.
TRIAL DRUG:		
INTERNAL MEDICINE	**:**	***Inji Chooranam***

(Reference: *Agathiyar paripooranam 400, Page no 111 &112)*

DOSAGE	:	2gm, twice a day
ADJUVANT	**:**	Warm water
DURATION	:	45 days

SUBJECT SELECTION:

Patients reporting with symptoms of *kudiveri Noi* will be subjected to screening using screening Proforma. Then they will be allowed for the study fulfilling the following criteria

INCLUSION CRITERIA:

- Age: 18 -60.
- Sex: Both Male and Female
- Patients having history of alcohol and following symptoms
    - Physical symptoms like loss of appetite, nausea, vomiting, tremor.
    - Psychological symptoms like intoxication, craving/urge of alcohol, negligence of activity.
- Patients who are willing to undergo hematological investigation &investigation & another lab investigation,
- Patient willing to sign the informed consent stating that he/she will consciously stick to the treatment during 45days.

EXCLUSION CRITERIA:

- Systemic diseases
- Other psychiatric illness
- Pregnancy and lactation
- Withdrawal symptoms like seizure, delirium.
- Any other serious illness

WITHDRAWAL CRITERIA

- Intolerance to the drug and development of adverse reactions during drug trial.
- Poor patient compliance & defaulters.
- Patient turned unwilling to continue in the course of clinical trial.
- Any drastic changes occurring in haematological finding during treatment period.
- Increase in severity of symptoms

TESTS AND ASSESMENTS

A. Clinical assessment
B. Siddha assessment
C. Laboratory investigations

A. CLINICAL ASSESSMENT:

- Acute intoxication,
- Harmful use
- Craving for alcohol
- Tolerance level
- Withdrawal symptoms
- Neglect of Activities
- Time spent in Alcohol-Related Activity
- Inability to Fulfill Roles

B. SIDDHA SYSTEM OF EXAMINATION AND PHYSICAL SYMPTOMS:

EN VAGAI THERVUGAL:

1. Naadi
2. Sparisam
3. Naa
4. Niram
5. Mozhi
6. Vizhi
7. Malam
8. Moothiram
    - Neikuri
    - Neerkuri

LABAROTARY INVESTIGATIONS:

BLOOD

Hb

Total WBC Count

DC - Polymorphs, Lymphocytes, Eosinophil, Monocytes, Basophils

Total RBC count

ESR

½ hr

1 hr

Blood sugar:

Fasting

Post prandial

Serum cholesterol

LIVER FUNCTION TESTS

Serum total bilirubin

Direct bilirubin

Indirect bilirubin

Serum Alkaline phosphatases

SGOT

SGPT

LIPID PROFILE:

HDL:

LDL:

VLDL:

Total Cholesterol

TGL

RENAL FUNCTION TESTS:

Urea

Creatinine

Uric acid

URINE:

Urine sugar

Albumin

Deposits

OTHERS:

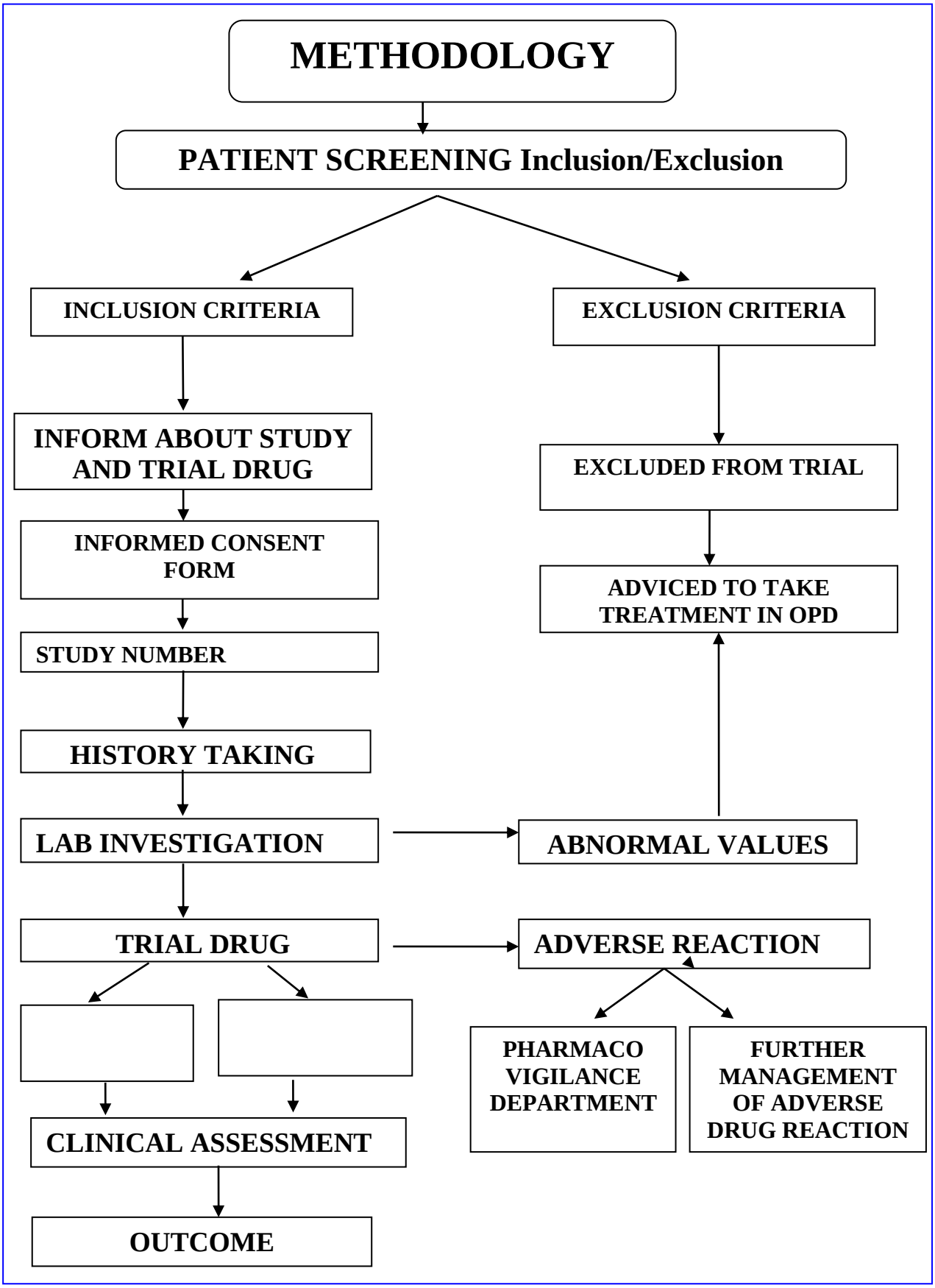
VDRL.

HbsAg.

DATA COLLECTION FORMS:

Required information will be collected from each patient by using the following forms

FORM I	Screening and selection Proforma.
FORM II	Clinical assessment Proforma.
FORM III	Laboratory investigation Proforma.
FORM IV	Drug compliance form.
FORM V	Patient information sheet.
FORM VI	Consent form.
FORM VII	Withdrawal form/Pharmacovigilance.
FORM VIII	Dietary Advice form.
FORM IX	Adverse reaction form


METHODOLOGY
PATIENT SCREENING Inclusion/Exclusion
INCLUSION CRITERIA
EXCLUSION CRITERIA
INFORM ABOUT STUDY AND TRIAL DRUG
EXCLUDED FROM TRIAL
INFORMED CONSENT FORM
ADVICED TO TAKE TREATMENT IN OPD
STUDY NUMBER
HISTORY TAKING
LAB INVESTIGATION
ABNORMAL VALUES
TRIAL DRUG
ADVERSE REACTION
PHARMACO VIGILANCE DEPARTMENT
FURTHER MANAGEMENT OF ADVERSE DRUG REACTION
CLINICAL ASSESSMENT
OUTCOME

STUDY ENROLLMENT

Patients reporting at the OPD with the clinical symptoms impaired control over drinking, pre-occupation with the drug alcohol, use of alcohol despite adverse consequences, and distortions in thinking etc. were examined clinically for enrolling in the study based on the inclusion and exclusion criteria.

The patients who were enrolled would be informed (Form V) about the study, trial drug, possible outcomes and the objectives of the study in the language and terms understandable to them, and informed consent would be obtained in writing from them in the consent form (Form VI).

Complete clinical history, complaints and duration, examination findings and laboratory investigations -- would be recorded in the prescribed Proforma.

Screening Form- I will be filled up, Form –II and Form –III will be used for recording the patients, history, clinical examination of symptoms and signs and laboratory investigations respectively. If there are any abnormal laboratory reports obtained then excluded from this study. Patients would be advised to take the trial drug and appropriate dietary advice (Form VIII) would be given according to the patients, perfect understanding.

CONDUCT OF THE STUDY:

The trial drug *Inji Choornam* (Internal Medicine) being given for 45 days. Adviced the patient to oil bath with *Arakku thylam*and purgation with *Meganaatha kulikai* with ginger juice at early morning on next day before intake of trial drug. The OPD patients should visit the hospital once in 7 days (Form IV). At each clinical visit clinical assessment was done and prognosis was noted. If there was a need of IPD the patient will be admitted in ward for clinical assessment. For inpatients the trial drug is given for 45 days and the clinical assessment was done daily. The patients were advised to follow the specific dietary regimen during their treatment period. The results were compared at the end of the study. Laboratory investigations are done on 0 day & 49^{th} day of the trial. For In patients, who are not in a situation to stay in the hospital for a long time, are advised to attend the OPD for further follow-up. Siddha investigations like Neerkuri and Neikuri were carried over. After the end of the treatment, the patient is advised to visit the OPD for another 3 months for follow-up. If any trial patient who fails to collect the trial drug on the prescribed day but wants to

continue in the trial from the next day or two, he/ she was allowed, but defaulters of one week and more were not allowed to continue and be withdrawn from the study with a fresh case being included.

DATA ANALYSIS:

After enrolling the patient in the study, a separate file would be maintained for each and every patient and all forms and other information was kept in the file. The screening forms were filed separately. All collected data will be statistically analyzed by Sr. Research Officer (Statistics) for logical errors and incompleteness of data to avoid any bias. No modification in the results is permitted for unbiased reports. Then final report will be generated.

ADVERSE EFFECT/SERIOUS EFFECT MANAGEMENT:

If the trial patient develops any adverse reactions (Form IX), he/she would be immediately withdrawn from the trial and proper management will be given in OPD of National Institute of Siddha and the same will be informed to the Pharmaco-vigilance committee (Form VII) of NIS.

OUTCOME:

PRIMARY OUTCOME:

I. Alcohol use disorders identification test(AUDIT).

B. Alcohol use disorder identification test(AUDIT)

The Alcohol Use Disorders Identification Test (AUDIT), developed in 1982 by the World

Health Organization, is a simple way to screen and identify people at risk of alcohol Problems.

	BEFORE TRIAL	**AFTER TRIAL**
1. How often do you have a drink containing alcohol?		
(0) Never (Skip to Questions 9-10)		
(1) Monthly or less		
(2) 2 to 4 times a month		

(3) 2 to 3 times a week

(4) 4 or more times a week

2. How many drinks containing alcohol do you have on a typical day when you are drinking?

(0) 1 or 2

(1) 3 or 4

(2) 5 or 6

(3) 7, 8, or 9

(4) 10 or more

3. How often do you have six or more drinks on one occasion?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

4. How often during the last year/Treatment period have you found that you were not able to stop drinking once you had started?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

5. How often during the last year/Treatment period have you failed to do what was normally expected from you because of drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

6. How often during the last year/Treatment period have you been unable to remember what happened the night before because you had been drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

7. How often during the last year/Treatment period have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

8. How often during the last year have you had a feeling of guilt or remorse after drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

(0) No

(2) Yes, but not in the last year

(4) Yes, during the last year

10. Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?

(0) No

(2) Yes, but not in the last year

(4) Yes, during the last year

Add up the points associated with answers. A total score of 8 or more indicates harmful
drinking behavior.

Total no of scoring-

Score 0-7 : No risk

Score 8-15 : Mild risk

Score 16-19 : Moderate risk

Score 20-40 : Severe risk

SECONDARY OUTCOME:

1) To improve the other clinical symptoms.
   a) Physical
   b) Mental
   c) Behavior

2) Changes in blood SGOT, SGPT, MCV Levels.

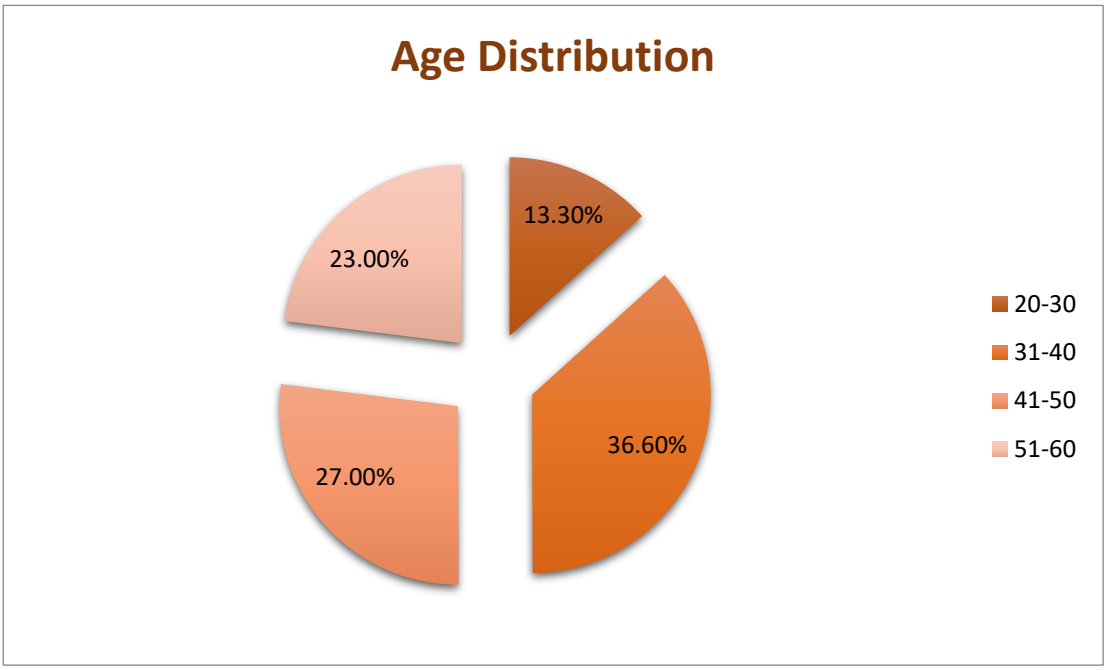
OBSERVATION AND RESULTS

The observation and results were studied and tabulated under the following heading.

1. Age distribution
2. Sex distribution
3. Occupational status
4. Family History
5. Diet habits
6. Thinai reference
7. Paruvakaalam distribution (seasonal variation)
8. Kaalam Distribution (According to Age)
9. Yakkai Ilakkanam (Physical Constitution)
10. Gunam reference (Character variation)
11. Duration of illness
12. Clinical features
13. Distributions of Mukkutram
14. UdarKattukkal reference (Body constituents)
15. En Vagaithervugal(Eight type of examination)
16. Neerkkuri, Neikkuri reference

1) Age Distribution

S. No.	Age	No of Cases	Percentage
1.	20-30	04	13.3%
2.	31-40	11	36.6%
3.	41-50	08	26.6%
4.	51-60	07	23.3%

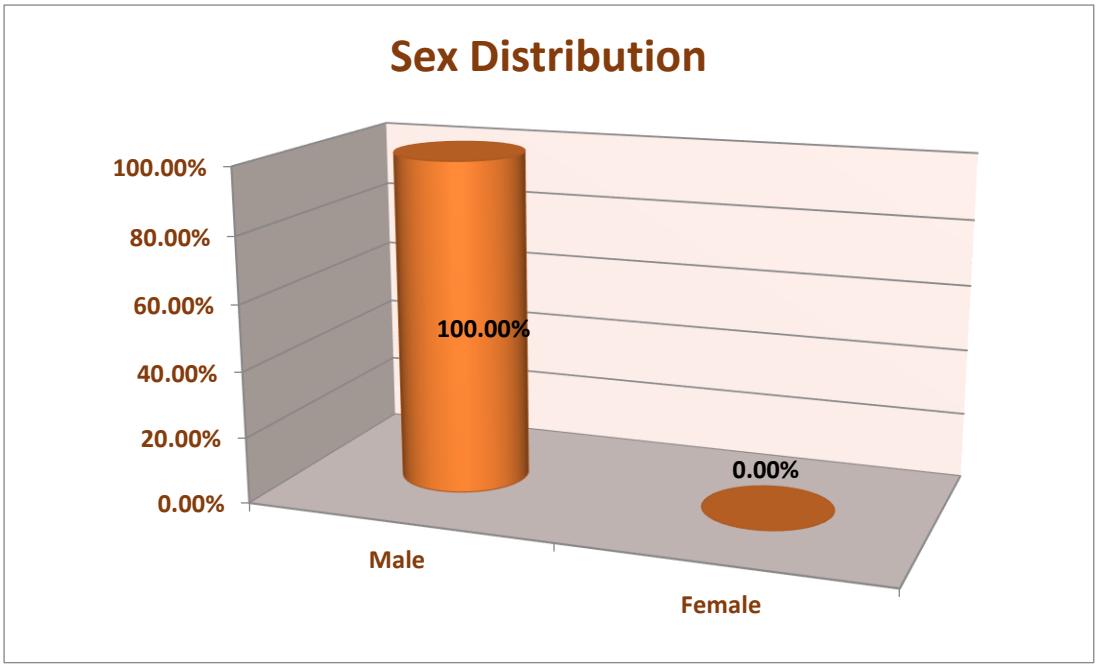


Observation:

The patients were selected from all age groups as given above and the maximum numbers of patients (11) were in the age between 31 and 40.

2) Sex Distribution:

S. No.	Sex	No of Cases	Percentage
1.	Male	30	100%
2.	Female	0	0%

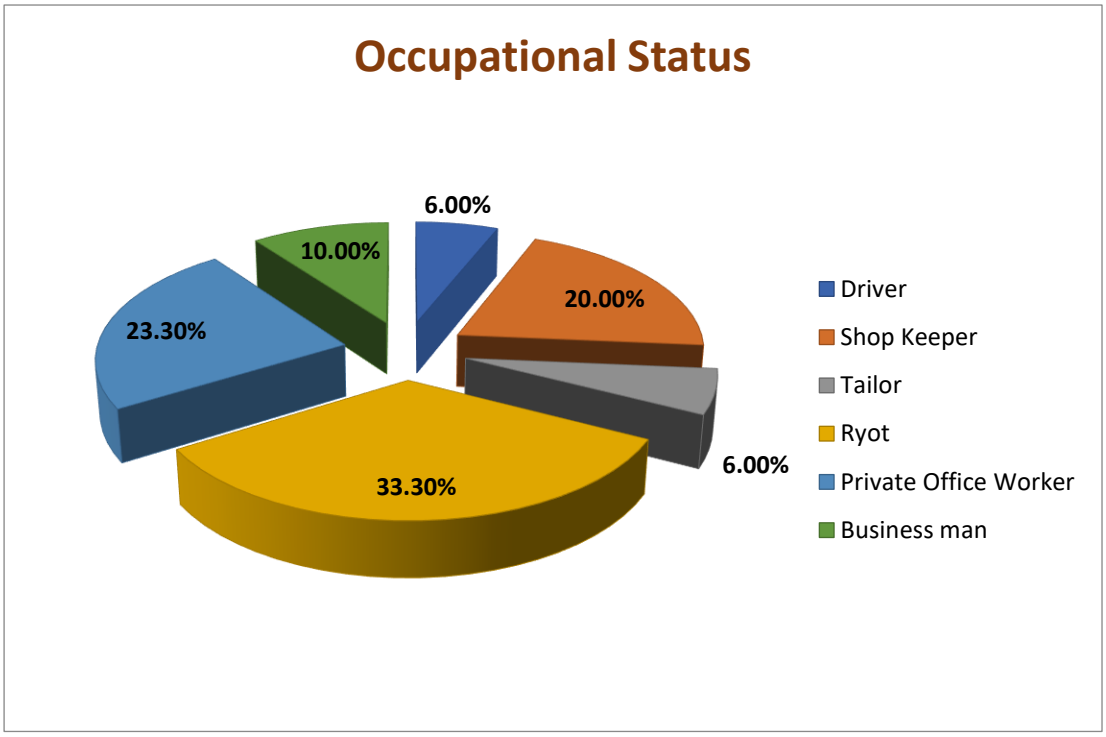


Observation:

Among the 30 patients selected for this study, 100% were males and no females.

3) Occupational Status

S. No.	Nature of Work	No. of Cases	Percentage
1.	Driver	2	6%
2.	Shop Keeper	06	20%
3.	Tailor	2	6%
4.	Ryot	10	33.3%
5.	Private Office worker	7	23.3%
6.	Business man	03	10%

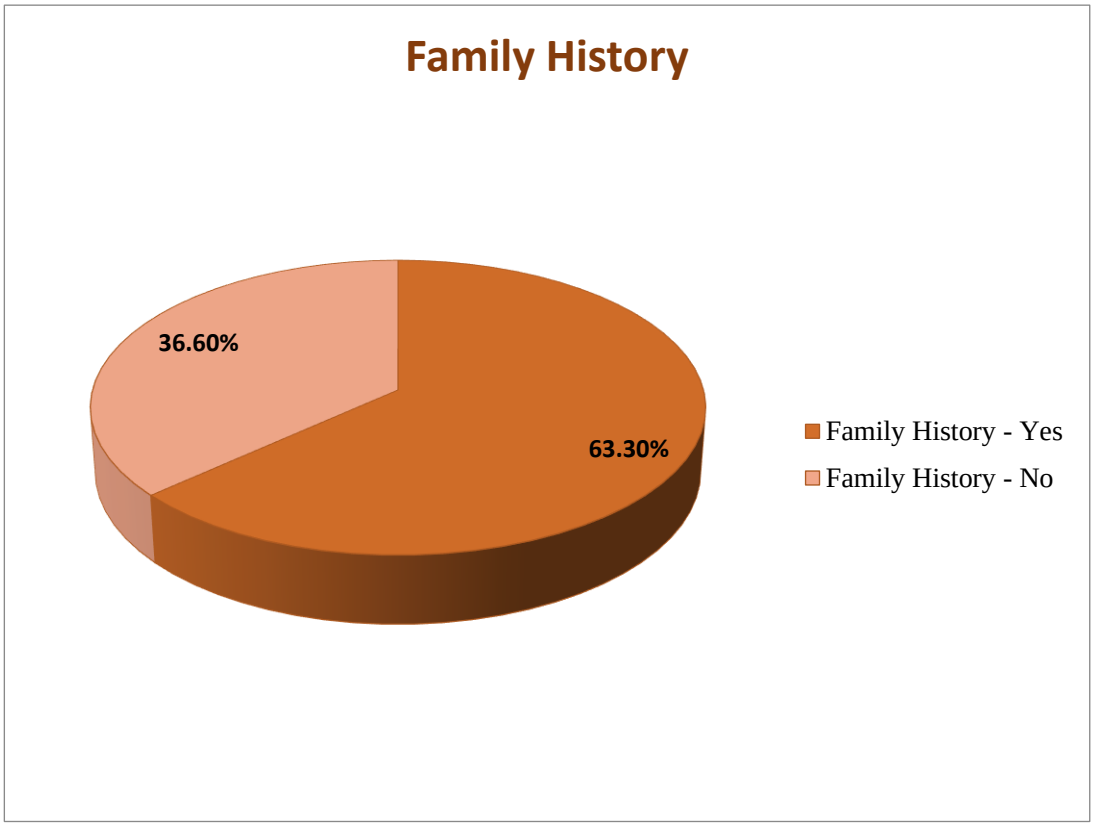


Observation:

The majority of patients in this study were Ryot

4) Family History

S. No.	Criteria	No of Cases	Percentage
1.	Family History - Present	19	63.3%
2.	Family History - Absent	11	36.6%

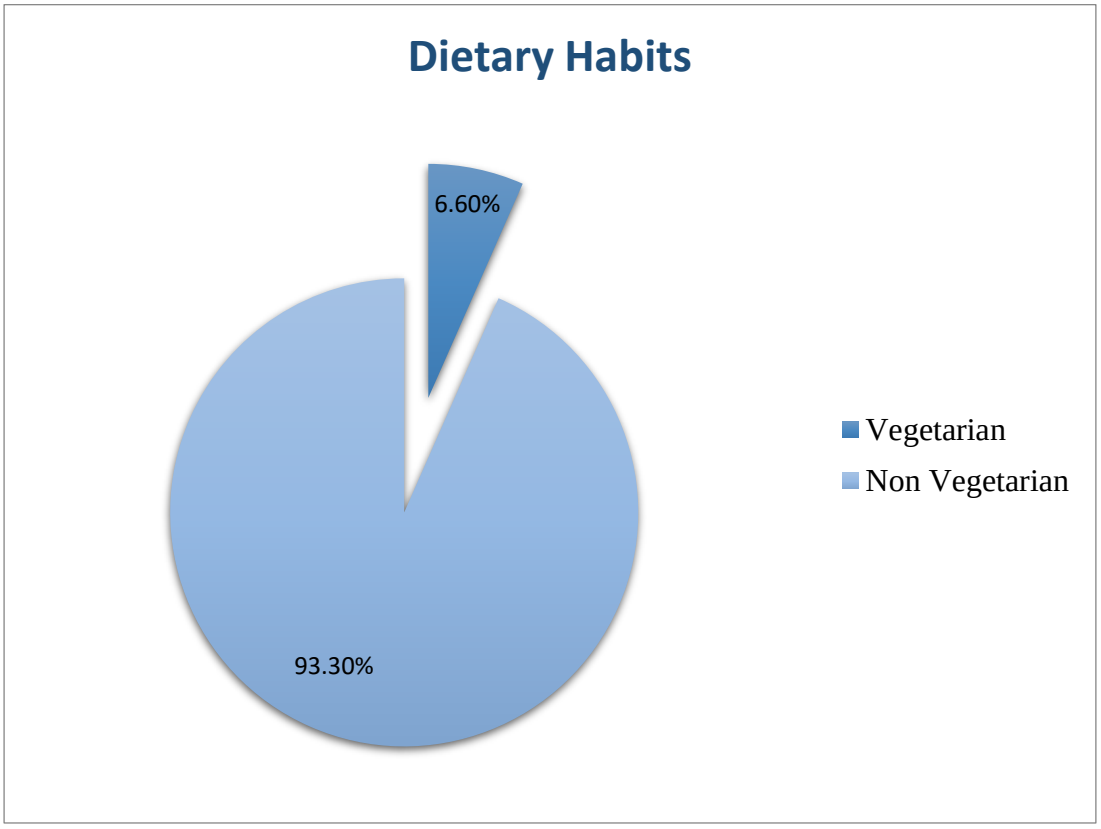


Observation:

63.30% of patients were positive family history

5) Dietary Habits

Sl. No	Dietary Habits	No of Cases	Percentage
1.	Vegetarian	2	6.6%
2.	Non -Vegetarian	28	93.3%

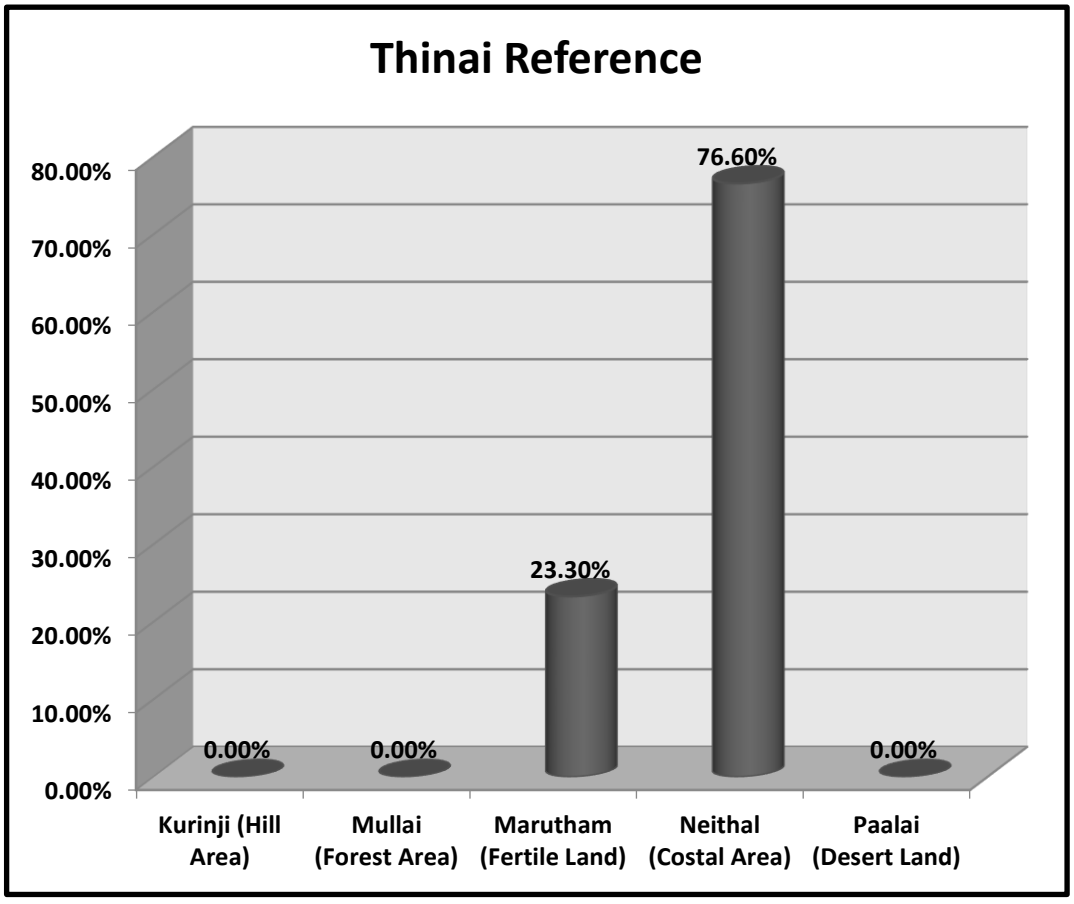


Observation:

93.30% of the patients were non-vegetarians.

6) Thinai Reference

Sl.No	Thinai	No of Cases	Percentage
1.	Kurinji (Hill Area)	0	0%
2.	Mullai (Forest Area)	0	0%
3.	Marutham (Fertile Land)	7	23.3%
4.	Neithal (Costal Area)	23	76.6%
5.	Paalai (Desert Land)	0	0%

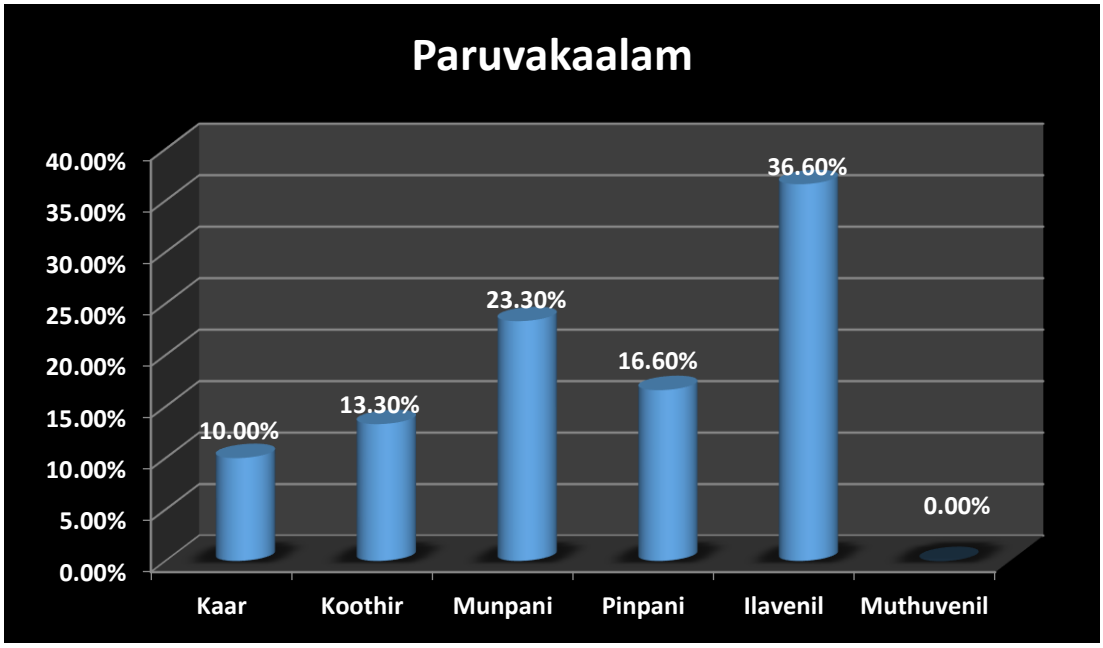


Observation:

76% of the patients were from *Neithal* (Coastal Area) and the remaining (23.30%) from *Marutham* (Fertile Land).

7) Paruvakaalam distribution (seasonal variation):

Sl. No.	Kaalam Distribution	No of Cases	Percentage
1.	Kaar Kaalam	3	10%
2.	Koothir Kaalam	4	13.3%
3.	Munpani Kaalam	7	23.3%
4.	Pinpani Kaalam	5	16.6%
5.	Ilavenil Kaalam	11	36.6%
6.	Muthuvenil	0	0%



Observation:

Highest number of patients 11(36.6%) were treated during Ilavenil kalam. And 7(23.30) cases who were treated in Munpani kalam.

8) Kaalam Distribution (According to Age):

In Siddha literature human life has been divided into three periods as follows

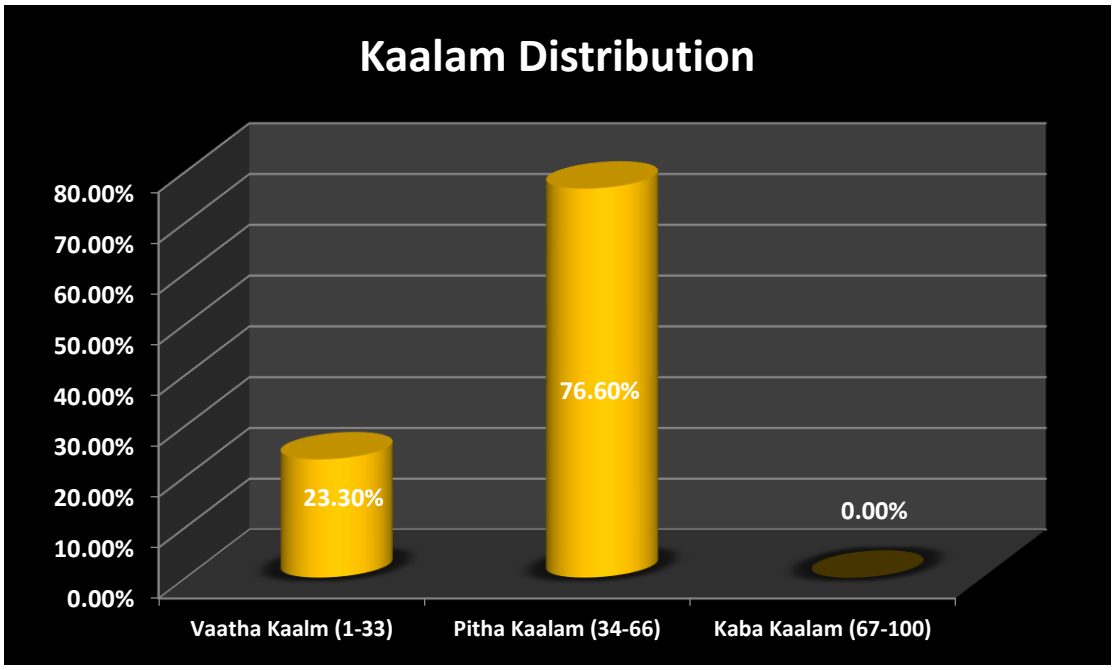
1) Vaatham

2) Pitham

3) Kabam

The duration of each period is said to be 33 years

Sl. No.	Kaalam	No of Cases	Percentage
1.	Vaatha Kaalm (1-33)	7	23.3%
2.	Pitha Kaalam (34-66)	23	76.6%
3.	Kaba Kaalam (67-100)	0	0%

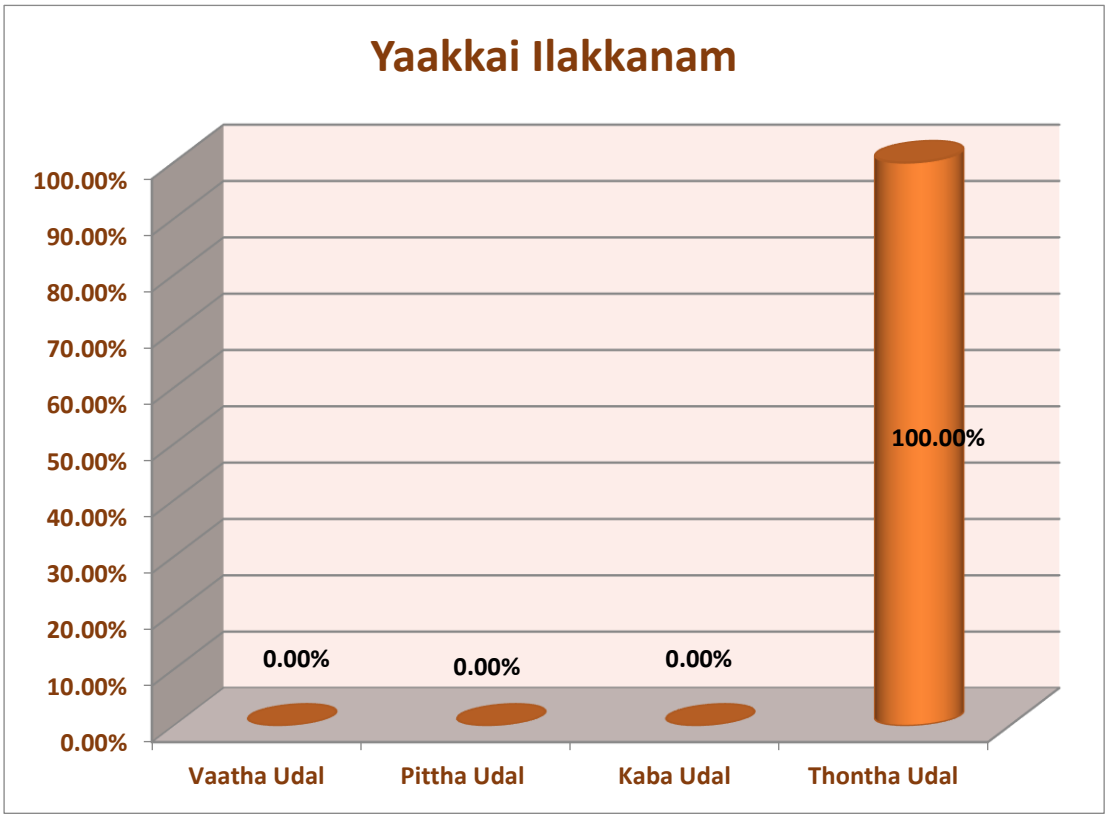


Observation:

Out of 30 patients, 23 (76.60) in *Pitha kaalam* and the remaining 7 (23.30%) patients reported in *Vaatha kaalam.*

9) Yaakai Ilakkanam (Physical Constitution):

Sl.No	Yaakai Ilakkanam	No. of Cases	Percentage
1.	Vaatha Udal	0	0%
2	Pittha Udal	0	0%
3.	Kaba Udal	0	0%
4.	Thontha Udal	30	100%

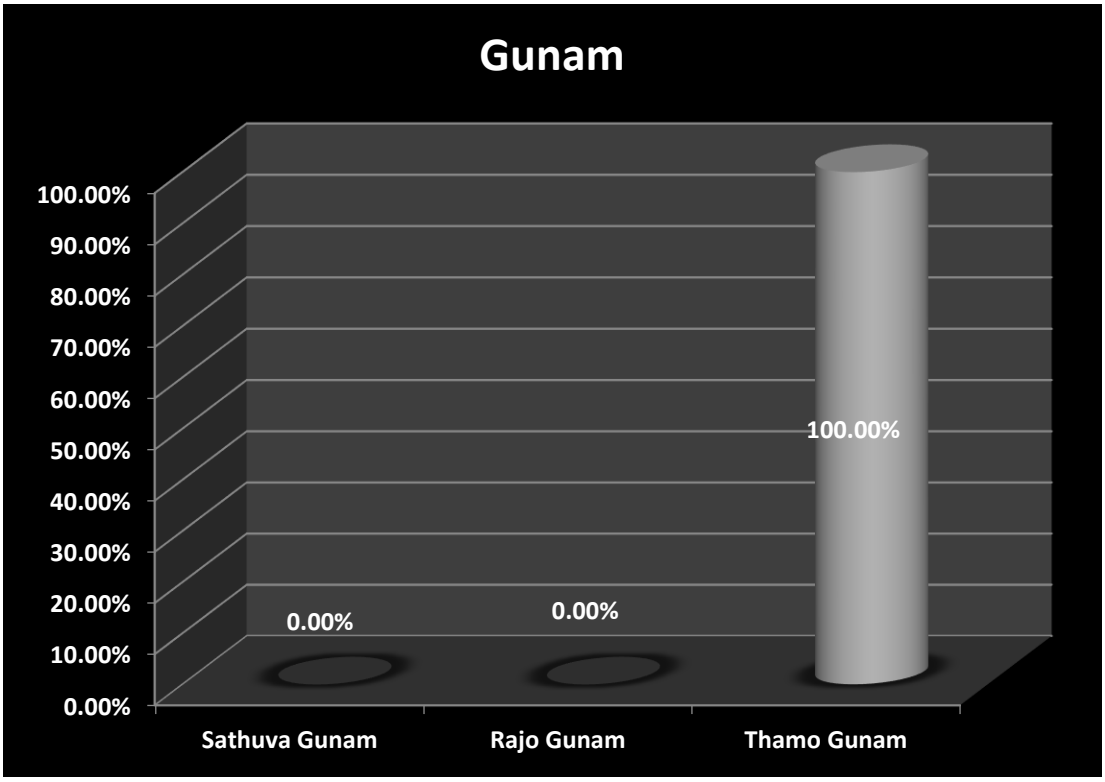


Observation:

All the patients (100%) had *Thontha Udal*

10) Gunam (Quality and Characters):

Sl.No	Gunam	No. of Cases	Percentage
1.	Sathuva Gunam	0	0%
2.	Rajo Gunam	0	0%
3.	Thamo Gunam	30	100%

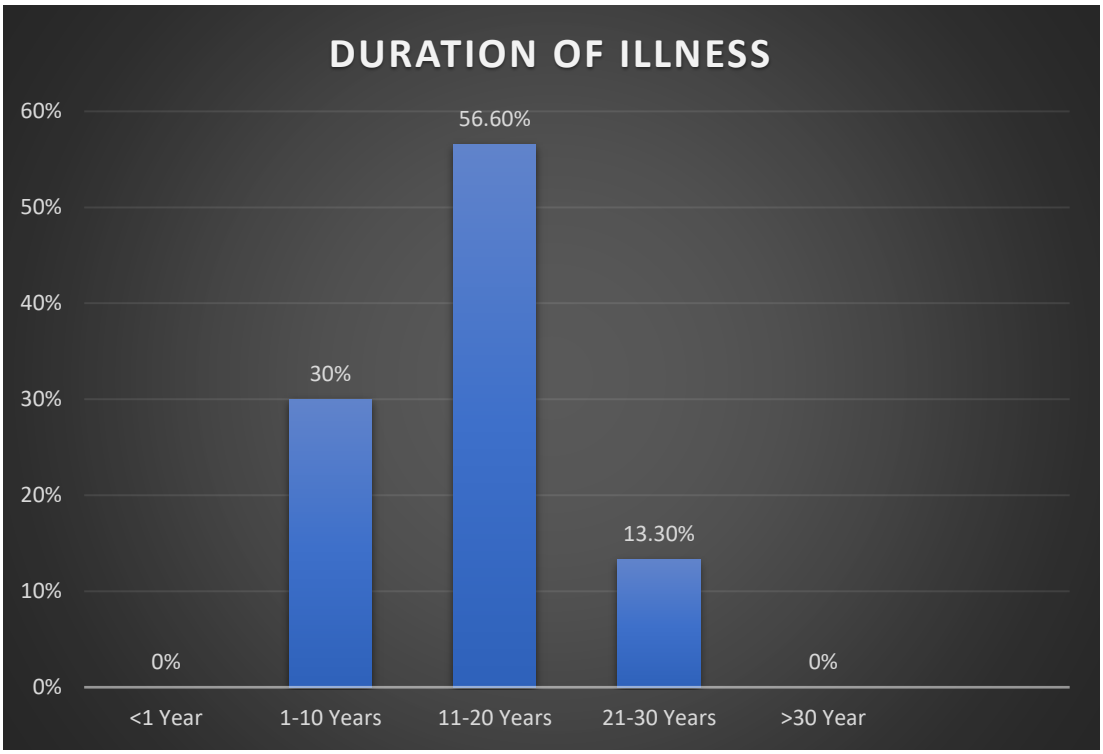


Observation:

All the patients (100%) had "*Thamo Gunam".*

11) Duration of Illness:

Sl. No	Duration of Illness	No of Cases	Percentage
1.	<1 Year	0	0%
2.	1-10 Years	9	30%
3.	11-20 Years	17	56.6%
4.	21-30 Years	4	13.3%
5.	>30 Year	0	0%

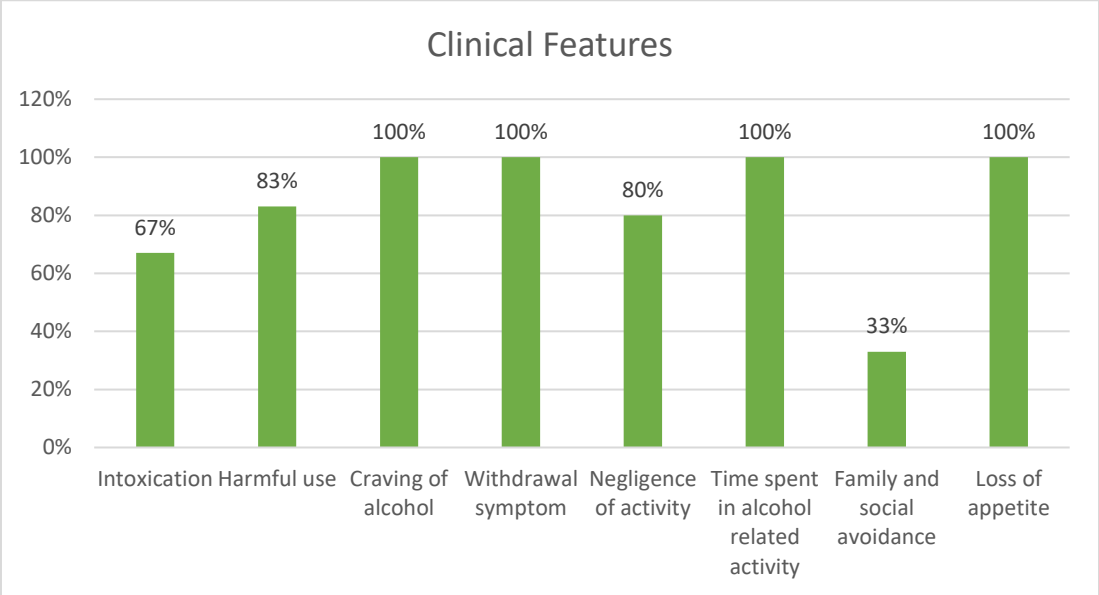


Observation:

56.6% of the patients were suffering with the illness between 11-20year.

12) Clinical Features:

Sl. No	Clinical Features	No of Cases	Percentage
1.	Intoxication	20	67%
2.	Harmful use	25	83%
3.	Craving of alcohol	30	100%
4.	Withdrawal symptom	30	100%
5.	Negligence of activity	24	80%
6.	Time spent in alcohol related activity	30	100%
7.	Family and social avoidance	10	33%
8.	Loss of appetite	30	100%

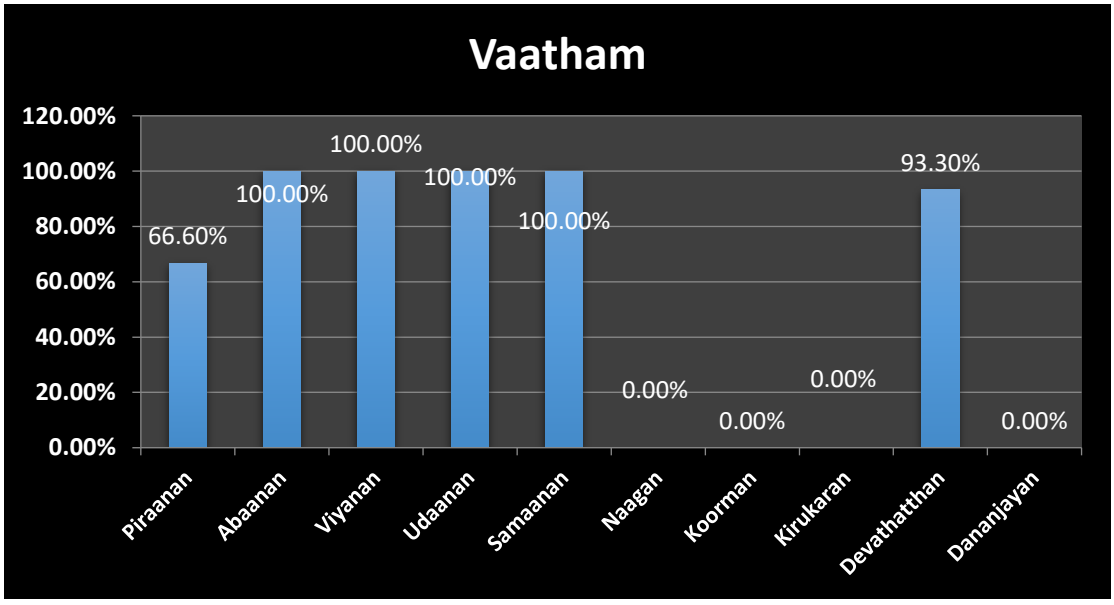


Observation:

All the patients had clinical feature of craving of alcohol, withdrawal symptom, loss appetite

13) Distribution of Mukkutram:

Sl. No.	Classification of Vaatham	No of Cases	Percentage
1.	Praanan	20	66.6%
2.	Abaanan	30	100%
3.	Udhaanan	30	100%
4.	Viyanan	30	100%
5.	Samaanan	30	100%
6.	Naagan	0	0%
7.	Koorman	0	0%
8.	Kirukaran	0	0%
9.	Devathatthan	28	93.3%
10.	Dananjayan	0	0%

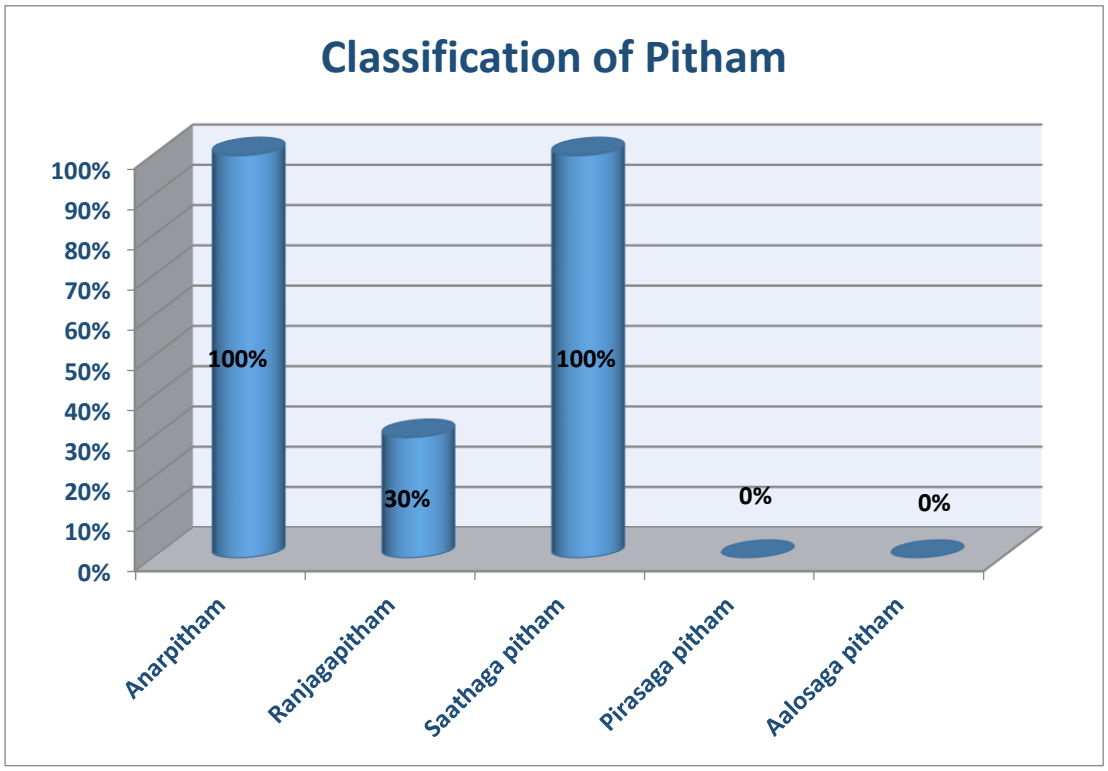


Observation:

Praanan, Abaanan, Udaanan, Samaanan and Viyaanan were affected in all the 30 patients. *Devathaththan* were affected in 28 patients.

Piththam:

Sl. No	Classification of Pitham	No of Cases	Percentage
1.	Anar pitham	30	100%
2.	Ranjaga pitham	09	30%
3.	Saathaga pitham	30	100%
4.	Pirasaga pitham	0	0%
5.	Aalosaga pitham	0	0%



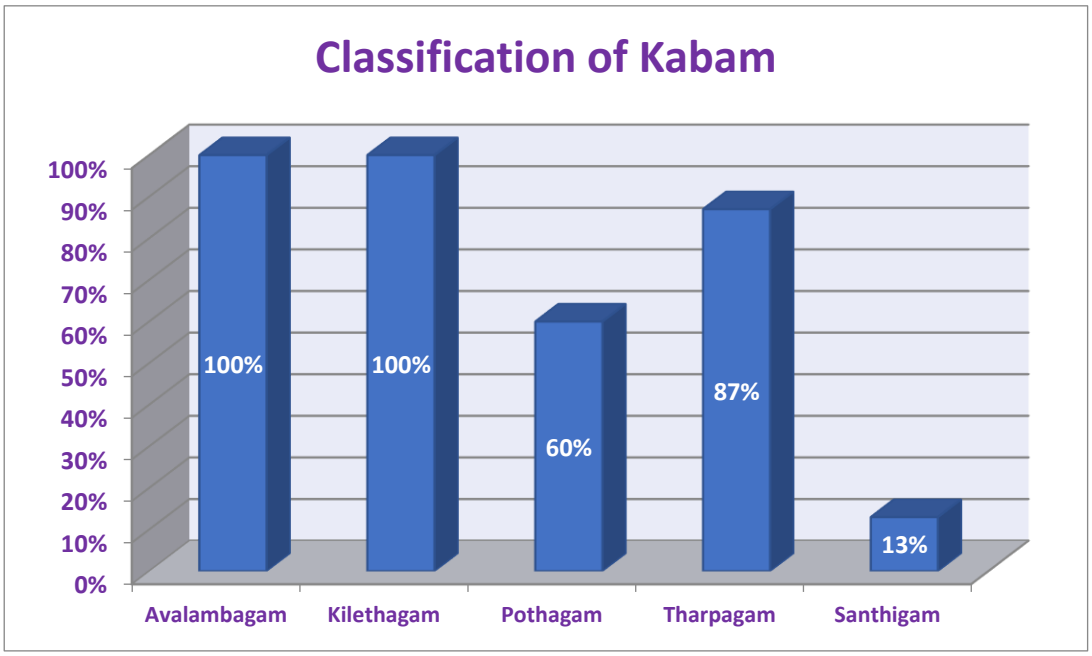
Observation:

*Anarpiththam*and, *Ranjagapiththam thee* was affected in all the cases.

Saathagapitham was affected in 30% of the patients.

Kabam:

Sl. No	Classification of Kabam	No of Cases	Percentage
1.	Avalambagam	30	100%
2.	Kilethagam	30	100%
3.	Pothagam	18	60%
4.	Tharpagam	26	87%
5.	Santhigam	04	13%

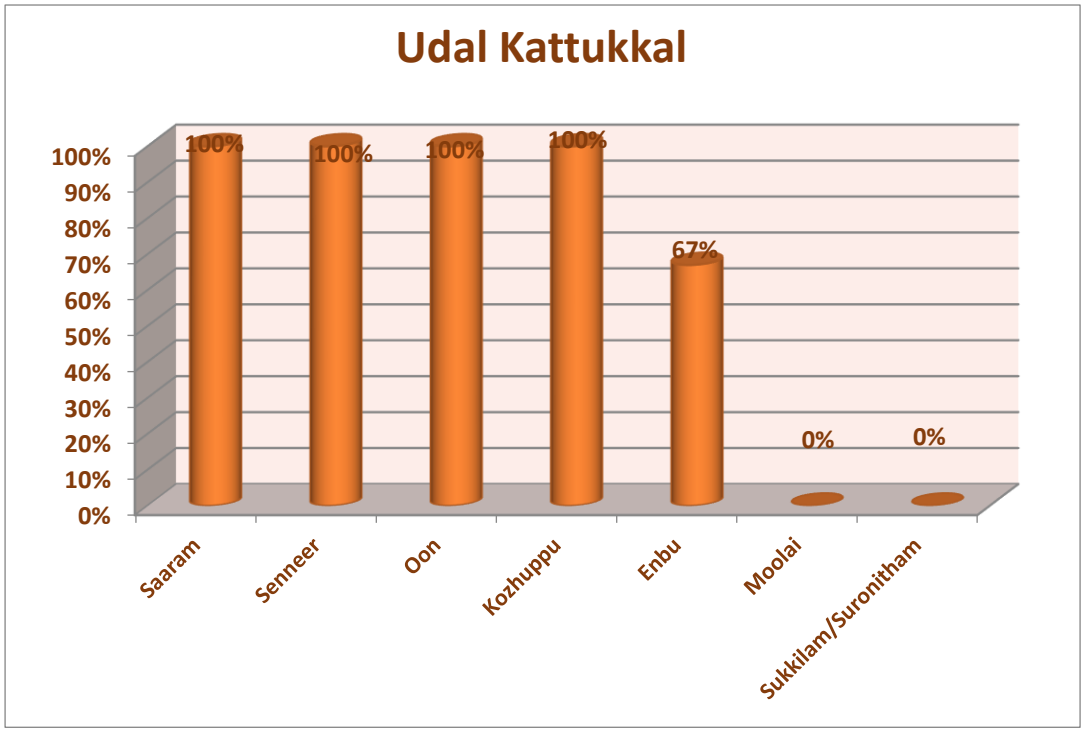


Observation:

Avalambagam, kiletham were affected in all cases

14) Udal Kattukkal:

Sl. No	Udal Kattukkal	No of Cases	Percentage
1.	Saaram	30	100%
2.	Senneer	30	100%
3.	Oon	30	100%
4.	Kozhuppu	30	100%
5.	Enbu	20	67%
6.	Moolai	0	0%
7.	Sukkilam/Suronitham	0	0%



Observation:

Among 30 patients, *Saaram* and *Seneer,Oon,Kozhupu* were affected in all the cases.

15) Envagai Thervugal

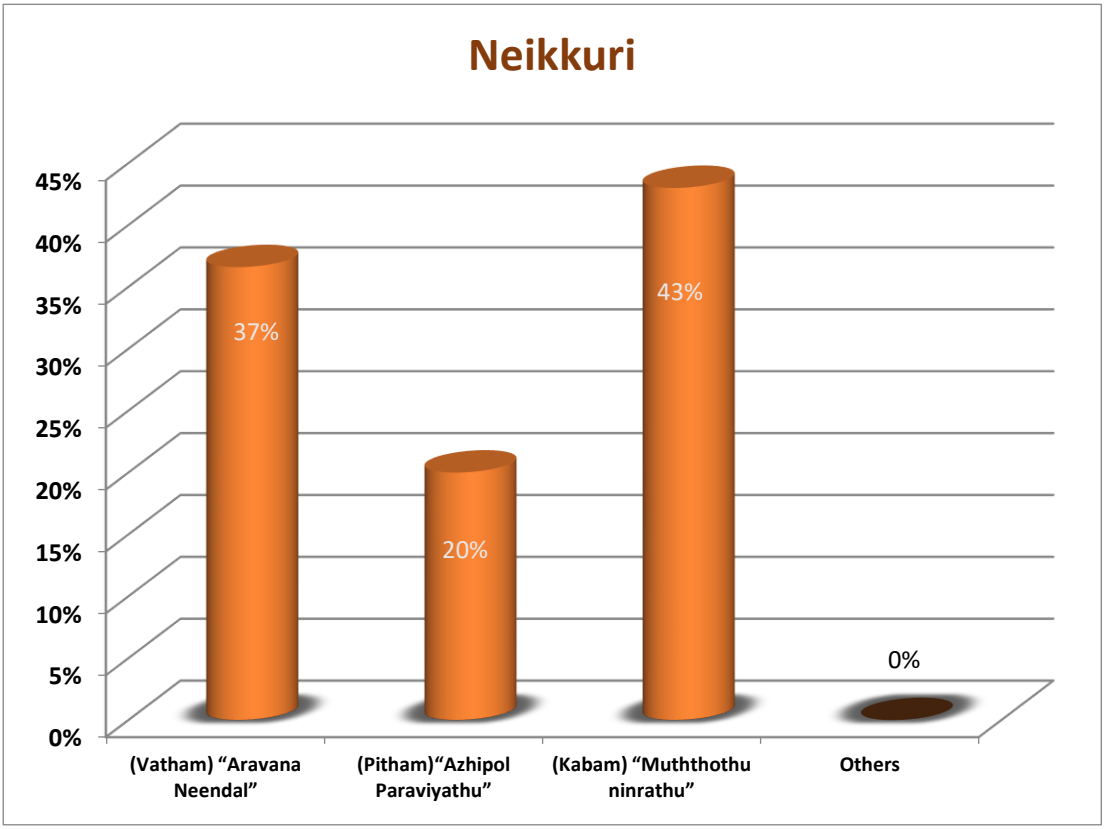
Sl. No	Envagai Thervugal	No of Cases	Percentage
1.	Naadi		
	a. Vatha pitham	8	26%
	b. Pitha vatham	16	53.3%
	c. Vadha kabam	2	6.6%
	d. Kabavatham	2	6.6%
2.	Sparisam	0	0%
3.	Naa	0	0%
4.	Niram	0	0%
5.	Mozhi	0	0%
6.	Vizhi	0	0%
7.	Malam	21	70%
8	Moothiram	0	0%

Observation:

In Envagai thervugal, *malam* were found affected in the 21 (70%) cases. The *Naadinadai* seen in Kudiveri noi patients were *Vaathapitham 8 (*67.5%), *Pithavaatham 16 (*53.3 %), *Vathakabam 2 (*6.6%), *Kabapitham 2 (*6.6%).

15) a. Neerkuri and Neikkuri

Sl. No	Type of Test	No of Cases	Percentage
1.	**Neerkkuri**		
	"Niram"-Pale yellow -Dark yellow	17 13	56.6% 43.3%
2.	Neikkuri		
	(Vaadham) "Aravna Neendal"	11	37%
	(Pitham) "Azhipol Paraviyathu	6	20%
	(Kabam) "Muththothu ninrathu"	13	43%
	Others	0	0%



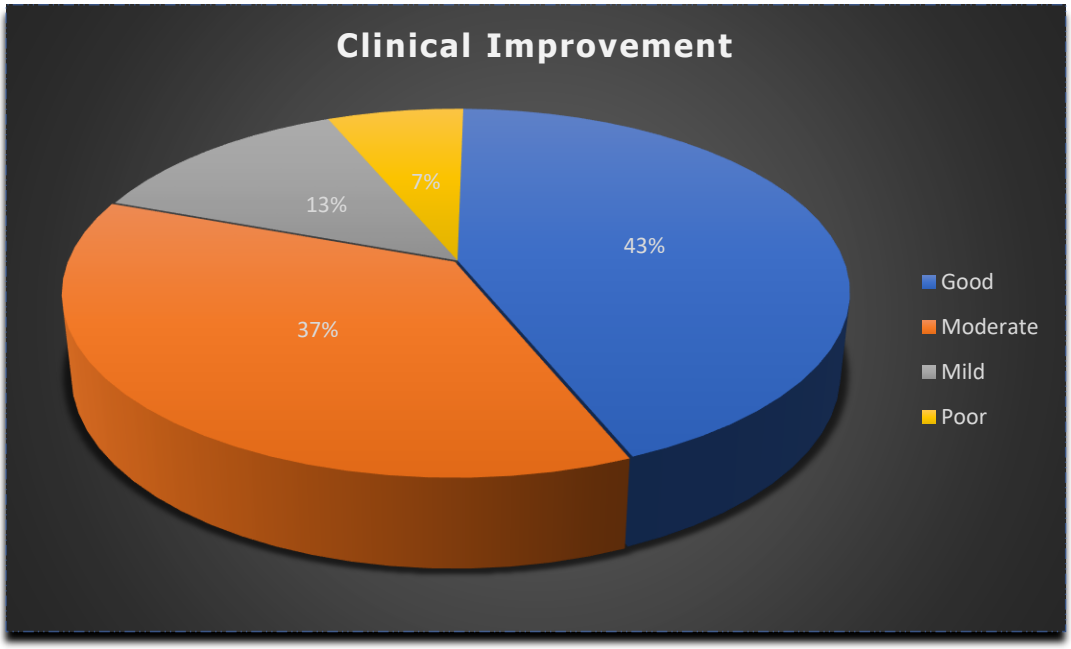
Observation:

Among 30 patients 17 cases were *Ila manjal*(Pale yellow) and 13 were *Manjal*(Dark yellow). *Neikuri*shows *Vatha, Pitha, kapha* neer observed 11 cases (36.6%),6 cases (20%),13 cases (43%).

17(A). Results OP CASES CLINICAL IMPROVEMENT (AUDIT SCORE)

Sl. No	OP No.	AGE/SEX	BT	AT	RESULT
1.	J 19962	36/M	29	7	Good
2.	J 06767	28/M	28	10	Moderate
3.	J 63348	37/M	22	7	Good
4.	J 57783	50/M	26	5	Good
5.	J 65563	43/M	28	9	Moderate
6.	J 28820	31/M	30	8	Moderate
7.	J 66459	24/M	25	10	Moderate
8.	J 99119	52/M	30	15	Moderate
9.	J 62510	41/M	23	19	Mild
10.	J 31942	48/M	28	5	Good
11.	J 69094	56/M	24	6	Good
12.	J 53489	35/M	22	7	Good
13.	J 92493	36/M	27	19	Mild
14.	J 94819	24/M	29	6	Good
15.	J 10134	40/M	28	5	Good
16.	K 00521	57/M	23	7	Good
17.	J 99542	46/M	23	8	Moderate
18.	K 03222	45/M	27	9	Moderate
19.	J 94960	40/M	26	16	Mild
20.	K 11710	57/M	30	5	Good
21.	K 13119	58/M	26	7	Good
22.	J 99595	37/M	25	9	Moderate
23.	J 86642	37/M	28	14	Moderate
24.	K 07426	38/M	28	7	Good
25.	K 16005	45/M	26	21	Poor
26.	K 20571	31/M	25	16	Mild
27.	K 11318	28/M	29	14	Moderate
28.	K 19169	31/M	30	7	Good
29.	K 0421	45/M	25	8	Moderate
30.	K 27863	48/M	30	22	Poor

Sl.No	Result	No of cases	Percentage
1	Good	13	43%
2	Moderate	11	37%
3	Mild	4	13%
4	Poor	2	7%



Observation:

Among 30 cases 13 cases were good improvement, 11 cases were moderate improvement, cases

INVESTIGATIONS BEFORE AND AFTER TREATMENT- THE OPD PATIENTS										
S. NO.	IP / OP NO.	AGE / SEX	Hb (gm/ dl)		TOTAL RBC COUNT (million/ cu.mm)		ESR (mm/ hour)		TOTAL WBC (cells/ cu.mm)	
			BT	AT	BT	AT	BT	AT	BT	AT
1.	J 19962	36/M	16.2	15	4.5	4.5	16/50	8/16	4600	7300
2.	J 06767	28/M	14.4	13.6	5.0	4.5	5/10	2/4	9400	9200
3.	J 63348	37/M	13.9	13.9	4.5	4.0	10/20	5/10	8300	7500
4.	J 57783	50/M	15.5	14.0	4.0	5.2	12/20	2/4	5500	4900
5.	J 65563	43/M	11.0	13.0	5.5	5.5	5/15	3/10	8900	8500
6.	J 28820	31/M	17	16	4.1	4.7	2/4	2/4	9500	7200
7.	J 66459	24/M	15	13	5.6	5.1	6/12	6/10	7500	9400
8.	J 99119	52/M	16	15.2	4.3	4.1	8/20	6/14	4800	7000
9.	J 62510	41/M	12	14	4.7	5.0	4/10	2/4	6200	4500
10.	J 31942	48/M	15	16.2	4.0	4.6	6/12	4/8	3500	6500
11.	J 69094	56/M	11	14	5.6	4.8	2/4	3/9	5500	7000
12.	J 53489	35/M	13	12.5	5.1	5.4	8/16	4/10	6400	6700
13.	J 92493	36/M	11.5	15.1	4.1	4.1	5/18	6/16	7200	7600
14.	J 94819	24/M	12.9	13	4.3	4.0	2/4	2/4	3900	4400
15.	J 10134	40/M	17	13.2	5.4	4.4	4/10	3/9	4800	5600
16.	K 00521	57/M	18	11.5	5.3	5.3	7/20	6/16	5500	9400
17.	J 99542	46/M	15.5	13	5.1	5.0	20/40	10/20	6100	5500
18.	K 03222	45/M	16.4	14.4	4.1	4.6	12/30	6/10	9800	7500
19.	J 94960	40/M	12	15.5	5.2	5.1	2/8	2/4	4800	5500
20.	K 11710	57/M	18	12.6	4.8	4.8	4/16	3/12	5900	6000
21.	K 13119	58/M	14.2	12	5.3	4.3	5/10	4/8	7700	8000
22.	J 99595	37/M	13.1	15	6.6	6.0	8/25	4/20	9000	5400
23.	J 86642	37/M	11	13	4.6	5.0	3/9	3/6	7000	3600
24.	K 07426	38/M	17	13	4.9	4.6	8/10	8/10	9100	8100
25.	K 16005	45/M	15	16	6.1	5.8	3/6	2/4	6300	4500
26.	K 20571	31/M	16	14	5.7	4.1	5/15	2/4	5400	5700
27.	K 11318	28/M	13.5	12.3	5.0	5.0	4/10	1/6l	4100	5500

28.	**K 19169**	**31/M**	**14.6**	**16**	**4.6**	**5.3**	**10/30**	**3/6**	**5800**	**4200**
29.	**K 0421**	**45/M**	**14.4**	**14**	**5.8**	**5.4**	**4/10**	**6/8**	**7300**	**6400**
30.	**K 27863**	**48/M**	**12**	**15**	**4.9**	**4.1**	**2/6**	**2/4**	**8008**	**5800**

INVESTIGATIONS BEFORE AND AFTER TREATMENT - THE OPD PATIENTS

S. No.	OP/IP No.	AGE/SEX	BLOOD (mg/dl)				UREA		CREATININE (mg/dl)	
			FASTING (mg/dl)		POST PRANDIAL (mg/dl)					
			BT	AT	BT	AT	BT	AT	BT	AT
1.	**J 19962**	**36/M**	**111**	**100**	**198**	**169**	**16**	**17**	**1.8**	**1.1**
2.	**J 06767**	**28/M**	**81**	**90**	**120**	**119**	**22**	**30**	**0.8**	**1.0**
3.	**J 63348**	**37/M**	**90**	**95**	**114**	**100**	**28**	**30**	**0.9**	**0.9**
4.	**J 57783**	**50/M**	**110**	**109**	**160**	**140**	**19**	**20**	**1.4**	**0.9**
5.	**J 65563**	**43/M**	**127**	**120**	**141**	**150**	**19**	**13**	**1.0**	**1.2**
6.	**J 28820**	**31/M**	**100**	**110**	**140**	**130**	**26**	**19**	**0.9**	**0.8**
7.	**J 66459**	**24/M**	**89**	**99**	**121**	**130**	**12**	**12**	**1.3**	**1.0**
8.	**J 99119**	**52/M**	**105**	**120**	**126**	**140**	**39**	**20**	**1.3**	**1.8**
9.	**J 62510**	**41/M**	**109**	**108**	**150**	**160**	**28**	**25**	**1.0**	**1.0**
10.	**J 31942**	**48/M**	**204**	**220**	**150**	**175**	**29**	**27**	**0.8**	**0.6**
11.	**J 69094**	**56/M**	**111**	**120**	**147**	**140**	**36**	**30**	**0.5**	**0.9**
12.	**J 53489**	**35/M**	**87**	**100**	**153**	**160**	**15**	**17**	**1.5**	**1.1**
13.	**J 92493**	**36/M**	**90**	**120**	**138**	**140**	**11**	**17**	**2.0**	**1.0**
14.	**J 94819**	**24/M**	**101**	**99**	**126**	**130**	**21**	**23**	**1.7**	**0.6**
15.	**J 10134**	**40/M**	**121**	**100**	**135**	**140**	**24**	**24**	**1.4**	**0.9**
16.	**K 00521**	**57/M**	**100**	**109**	**140**	**156**	**21**	**21**	**1.9**	**1.2**
17.	**J 99542**	**46/M**	**94**	**100**	**130**	**130**	**24**	**26**	**0.5**	**1.2**
18.	**K 03222**	**45/M**	**89**	**101**	**125**	**135**	**21**	**21**	**0.8**	**1.0**
19.	**J 94960**	**40/M**	**90**	**87**	**140**	**145**	**27**	**30**	**1.4**	**0.8**

20.	**K 11710**	**57/M**	**98**	**90**	**122**	**135**	**25**	**21**	**0.9**	**0.4**
21.	**K 13119**	**58/M**	**100**	**106**	**145**	**150**	**14**	**18**	**1.0**	**1.1**
22.	**J 99595**	**37/M**	**120**	**117**	**150**	**145**	**14**	**16**	**0.9**	**0.9**
23.	**J 86642**	**37/M**	**127**	**130**	**135**	**140**	**13**	**14**	**1.3**	**1.2**
24.	**K 07426**	**38/M**	**98**	**110**	**115**	**145**	**15**	**20**	**1.5**	**1.0**
25.	**K 16005**	**45/M**	**101**	**100**	**128**	**135**	**19**	**21**	**1.3**	**1.5**
26.	**K 20571**	**31/M**	**108**	**110**	**130**	**140**	**27**	**25**	**0.7**	**1.1**
27.	**K 11318**	**28/M**	**110**	**89**	**130**	**125**	**15**	**20**	**1.0**	**0.9**
28.	**K 19169**	**31/M**	**116**	**90**	**130**	**129**	**19**	**19**	**1.7**	**0.7**
29.	**K 0421**	**45/M**	**99**	**98**	**135**	**135**	**20**	**20**	**1.2**	**1.2**
30.	**K 27863**	**48/M**	**100**	**106**	**135**	**125**	**17**	**18**	**0.9**	**1.1**

INVESTIGATIONS BEFORE AND AFTER TREATMENT - THE OPD PATIENTS

S. No.	**OP/IP NO.**	**AGE/ SEX**	**URINE SUGAR (F)**		**URINE SUGAR (PP)**		**ALBUMIN**		**DEPOSITS**			
									Epithelial cells		**Pus cells**	
			BT	**AT**	**BT**	**AT**	**BT**	**AT**	**BT**	**AT**	**BT**	**AT**
1.	**J 19962**	**36/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-3**	**1-2**	**2-4**	**1-2**
2.	**J 06767**	**28/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-3**	**1-3**	**2-3**	**1-3**
3.	**J 63348**	**37/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**4-6**	**2-4**	**3-4**	**4-6**
4.	**J 57783**	**50/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-3**	**1-2**	**1-2**	**3-4**
5.	**J 65563**	**43/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-3**	**1-5**	**2-3**	**1-3**
6.	**J 28820**	**31/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**1-2**	**1-2**	**4-6**	**2-3**
7.	**J 66459**	**24/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-4**	**1-2**	**2-3**	**2-6**
8.	**J 99119**	**52/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**4-6**	**2-3**	**1-2**	**1-2**
9.	**J 62510**	**41/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-4**	**2-3**	**2-3**	**2-3**
10.	**J 31942**	**48/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-4**	**1-3**	**2-4**	**1-2**
11.	**J 69094**	**56/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-4**	**1-3**	**2-4**	**2-6**
12.	**J 53489**	**35/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**2-4**	**1-2**	**3-5**	**1-5**
13.	**J 92493**	**36/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**6-8**	**4-5**	**1-2**	**1-3**
14.	**J 94819**	**24/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**3-5**	**1-2**	**3-5**	**2-3**
15.	**J 10134**	**40/M**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**Nil**	**1-2**	**1-2**	**1-3**	**1-3**

16.	K 00521	57/M	Nil	Nil	Nil	Nil	Nil	Nil	1-2	4-5	2-4	1-2
17.	J 99542	46/M	Nil	Nil	Nil	Nil	Nil	Nil	6-8	6-7	1-5	1-3
18.	K 03222	45/M	Nil	Nil	Nil	Nil	Nil	Nil	2-3	1-2	3-5	3-5
19.	J 94960	40/M	Nil	Nil	Nil	Nil	Nil	Nil	2-3	1-3	3-5	2-3
20.	K 11710	57/M	Nil	Nil	Nil	Nil	Nil	Nil	3-5	1-3	1-2	1-2
21.	K 13119	58/M	Nil	Nil	Nil	Nil	Nil	Nil	3-5	1-2	4-6	4-6
22.	J 99595	37/M	Nil	Nil	Nil	Nil	Nil	Nil	1-3	1-3	3-5	2-5
23.	J 86642	37/M	Nil	Nil	Nil	Nil	Nil	Nil	4-6	4-6	1-2	1-3
24.	K 07426	38/M	Nil	Nil	Nil	Nil	Nil	Nil	4-6	1-2	2-4	2-4
25.	K 16005	45/M	Nil	Nil	Nil	Nil	Nil	Nil	2-4	1-2	3-5	2-6
26.	K 20571	31/M	Nil	Nil	Nil	Nil	Nil	Nil	1-2	1-2	1-3	1-5
27.	K 11318	28/M	Nil	Nil	Nil	Nil	Nil	Nil	2-3	1-2	3-4	1-4
28.	K 19169	31/M	Nil	Nil	Nil	Nil	Nil	Nil	2-4	0-1	1-3	2-3
29.	K 0421	45/M	Nil	Nil	Nil	Nil	Nil	Nil	1-2	1-2	2-3	2-4
30.	K 27863	48/M	Nil	Nil	Nil	Nil	Nil	Nil	2-4	1-2	3-5	1-2

LIVER FUNCTION TESTS BEFORE AND AFTER TREATMENT - THE OPD PATIENTS

S. No	OP/IP No	AGE /SEX	SGOT (IU/L)		SGPT (IU/L)		AL. PHOS (U/dl)		ALBUMIN (g/dl)		GLOBULIN (g/dl)		T. PROTEIN (g/dl)	
			BT	AT	BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
1.	J 19962	36/M	30	35	34	39	111	96	3.2	3.1	3.1	2.6	6.2	6.0
2.	J 06767	28/M	46	45	20	23	72	88	4.2	4.5	3.3	2.1	7.5	8.4
3.	J 63348	37/M	17	20	15	18	190	200	4.4	4.0	2.3	3.1	6.7	8.2
4.	J 57783	50/M	18	40	14	30	66	93	4.3	3.9	2.6	3.1	6.9	7.9
5.	J 65563	43/M	18	23	03	34	98	56	4.7	4.6	3.0	2.3	7.5	6.7
6.	J 28820	31/M	20	20	23	20	61	62	4.5	4.5	3.7	3.4	8.4	6.5
7.	J 66459	24/M	24	17	11	16	111	121	7.4	7.8	3.1	3.3	7.4	7.1
8.	J 99119	52/M	51	21	33	10	75	64	5.4	4.8	2.6	3.7	8.4	7.4
9.	J 62510	41/M	23	26	30	22	81	75	4.8	4.7	3.1	3.1	6.4	7.1
10.	J 31942	48/M	20	19	14	16	112	79	4.0	4.5	3.2	3.2	6.1	6.0
11.	J 69094	56/M	35	22	48	32	48	27	7.0	7.0	3.9	3.9	8.6	8.4
12.	J 53489	35/M	45	19	31	16	46	38	4.6	4.8	2.6	2.9	7.0	7.4
13.	J 92493	36/M	38	27	17	29	43	70	4.9	4.4	2.9	2.6	8.2	6.4
14.	J 94819	24/M	28	30	26	28	94	100	4.3	4.6	3.0	3.0	8.5	2.9
15.	J 10134	40/M	85	79	72	68	67	79	4.5	4.2	2.0	2.0	7.8	7.2
16.	K00521	57/M	22	21	15	19	64	53	4.2	5.0	2.8	2.8	6.3	7.3
17.	J 99542	46/M	27	20	52	46	71	86	3.5	4.8	3.2	2.2	6.7	8.1

18.	K 03222	45/M	61	63	46	41	190	185	3.9	4.5	2.6	3.2	7.1	7.9
19.	J 94960	40/M	22	25	19	32	57	60	4.1	4.7	2.6	2.6	8.5	7.2
20.	K 11710	57/M	109	100	64	69	111	149	4.7	5.1	3.5	3.8	7.9	8.0
21.	K 13119	58/M	26	30	13	19	51	70	4.7	5.0	5.3	2.9	6.1	7.1
22.	J 99595	37/M	30	39	11	20	50	93	4.9	4.9	2.7	3.6	6.4	6.9
23.	J 86642	37/M	40	45	34	34	96	80	3.1	4.1	3.5	3.0	7.3	7.1
24.	K 07426	38/M	57	64	60	54	140	130	3.7	4.0	2.9	2.8	6.9	8.3
25.	K 16005	45/M	19	20	46	46	90	103	3.6	3.9	3.0	2.4	8.2	6.9
26.	K 20571	31/M	43	62	20	19	50	40	4.7	3.4	3.4	3.0	7.2	6.1
27.	K 11318	28/M	16	41	65	69	100	90	3.9	3.1	2.5	2.9	6.1	5.8
28.	K 19169	31/M	24	20	80	10	44	36	4.9	4.1	3.0	3.0	7.6	6.6
29.	K 0421	45/M	30	31	31	29	60	59	4.4	3.9	2.2	2.9	7.3	7.9
30.	K 27863	48/M	21	25	14	20	66	70	4.3	3.2	2.8	2.2	7.5	7.6

LIVER FUNCTION TESTS BEFORE AND AFTER TREATMENT - THE OPD PATIENTS

S.NO.	IP/OP NO	AGE / SEX	TOTAL BILIRUBIN		DIRECT BILIRUBIN		INDIRECT BILIRUBIN	
			BT	AT	BT	AT	BT	AT
1.	J 19962	36/M	2.0	1.2	0.3	0.3	0.2	0.2
2.	J 06767	28/M	1.1	0.9	0.8	0.2	0.9	0.3
3.	J 63348	37/M	0.9	1.0	0.8	0.4	0.8	0.4
4.	J 57783	50/M	1.8	0.7	1.2	0.2	1.4	0.2
5.	J 65563	43/M	1.4	0.4	0.5	0.5	0.8	0.3
6.	J 28820	31/M	0.7	0.3	0.4	0.3	0.5	0.3
7.	J 66459	24/M	1.4	1.1	0.2	0.2	1.2	0.4
8.	J 99119	52/M	2.2	1.3	0.8	0.7	0.9	0.3
9.	J 62510	41/M	0.6	0.3	0.7	0.7	0.5	0.9
10.	J 31942	48/M	1.8	1.7	0.7	0.2	0.9	1.1
11.	J 69094	56/M	2.0	0.9	0.7	0.3	0.7	0.7
12.	J 53489	35/M	1.7	1.1	3.0	2.0	1.9	1.1
13.	J 92493	36/M	1.1	0.8	2.8	1.0	0.9	0.8
14.	J 94819	24/M	0.9	0.4	1.9	0.9	1.0	1.0
15.	J 10134	40/M	0.2	0.2	0.6	0.3	0.2	0.2
16.	K 00521	57/M	0.9	0.9	2.1	1.6	1.9	0.9
17.	J 99542	46/M	1.1	0.3	0.3	0.2	0.4	1.1
18.	K 03222	45/M	1.9	0.3	0.2	0-2	0.8	1.0
19.	J 94960	40/M	2.0	1.1	1.2	1.0	1.8	1.1
20.	K 11710	57/M	1.1	1.4	0.4	0.4	0.5	0.3

21.	K 13119	58/M	0.4	0.2	0.2	0.2	0.3	0.5
22.	J 99595	37/M	0.9	0.2	0.5	0.6	0.4	0.3
23.	J 86642	37/M	2.0	0.5	0.4	0.2	0.4	0.2
24.	K 07426	38/M	2.8	2.0	2.0	1.9	2.1	0.4
25.	K 16005	45/M	3.0	2.0	2.8	1.9	2.5	0.9
26.	K 20571	31/M	1.1	1.0	1.7	1.1	0.9	0.8
27.	K 11318	28/M	2.3	1.3	1.8	1.2	1.0	1.0
28.	K 19169	31/M	0.9	0.9	0.8	0.7	0.8	0.4
29.	K 0421	45/M	2.8	1.9	2.0	1.5	2.6	0.8
30.	K 27863	48/M	1.9	1.1	1.7	1.2	1.5	0.9

CHOLESTEROL PROFILE OF THE OPD PATIENTS (BEFORE AND AFTER TREATMENT)

S. No.	IP/OP No	AGE/ SEX	T. CHOLESTEROL (mg/dl)		HDL (mg/dl)		LDL (mg/dl)		VLDL (mg/dl)		TGL (mg/dl)	
			BT	AT	BT	AT	BT	AT	BT	AT	BT	AT
1.	J 19962	36/M	109	99	42	39	69	50	27	20	130	101
2.	J 06767	28/M	90	89	62	59	75	74	30	19	145	121
3.	J 63348	37/M	199	184	83	71	121	110	41	25	90	71
4.	J 57783	50/M	130	125	46	40	70	68	35	20	51	49
5.	J 65563	43/M	178	169	52	45	107	97	27	36	81	91
6.	J 28820	31/M	220	211	39	35	145	157	18	19	150	140
7.	J 66459	24/M	190	179	94	85	90	81	28	30	85	19
8.	J 99119	52/M	260	251	52	47	135	110	17	29	59	41
9.	J 62510	41/M	220	192	66	51	80	90	35	30	74	60
10.	J 31942	48/M	154	141	59	50	74	89	26	19	185	177
11.	J 69094	56/M	160	151	121	96	160	125	04	12	100	77
12.	J 53489	35/M	221	219	99	90	89	99	37	19	69	58
13.	J 92493	36/M	150	131	70	65	103	109	19	20	81	90
14.	J 94819	24/M	184	171	76	70	100	80	25	30	171	155
15.	J 10134	40/M	211	201	53	49	70	65	42	39	95	96
16.	K 00521	57/M	145	141	62	64	110	96	29	26	86	80
17.	J 99542	46/M	169	151	94	89	125	101	24	20	115	101
18.	K 03222	45/M	144	139	58	45	110	91	39	40	76	82
19.	J 94960	40/M	188	178	71	68	104	100	19	14	178	169
20.	K 11710	57/M	176	161	89	81	90	74	28	18	110	112
21.	K 13119	58/M	166	155	70	61	79	85	36	29	89	90

22.	**J 99595**	**37/M**	**182**	**170**	**44**	**41**	**124**	**109**	**19**	**11**	**67**	**70**
23.	**J 86642**	**37/M**	**169**	**164**	**40**	**39**	**135**	**118**	**25**	**17**	**174**	**147**
24.	**K 07426**	**38/M**	**145**	**138**	**71**	**67**	**104**	**110**	**06**	**12**	**48**	**80**
25.	**K 16005**	**45/M**	**171**	**169**	**51**	**69**	**96**	**90**	**28**	**15**	**75**	**59**
26.	**K 20571**	**31/M**	**181**	**174**	**86**	**80**	**84**	**75**	**09**	**15**	**82**	**75**
27.	**K 11318**	**28/M**	**218**	**180**	**67**	**70**	**120**	**90**	**15**	**30**	**100**	**89**
28.	**K 19169**	**31/M**	**169**	**150**	**79**	**80**	**124**	**110**	**24**	**20**	**154**	**138**
29.	**K 0421**	**45/M**	**189**	**154**	**70**	**65**	**73**	**89**	**35**	**26**	**121**	**100**
30.	**K 27863**	**48/M**	**156**	**151**	**81**	**79**	**110**	**80**	**18**	**15**	**94**	**60**

STATISTIC ANALYSIS

All collected data were entered into MS Excel software using different columns as variables and rows as patients. SPSS software was used to perform statistical analysis. Basic descriptive statistics include frequency distributions and cross-tabulations were performed. The quantity variables were expressed as Mean ± Standard Deviation and qualitative data as percentage. A probability value of <0.05 was considered to indicate as statistical significance. Paired 't' test was performed for determining the significance between before and after treatment.

Paired Sample Statistics (AUDIT Score Before Treatment and After Treatment)

Variable	Obs	Mean±SD	t Value	p Value
Before treatment	30	26.6 ± 2.5	15.7	<0.0001
After treatment	30	10.3 ± 5.13	15.7	<0.0001

The mean ± standard deviation of AUDIT score at before and after treatment were 26.6 ± 2.5 and 10.3 ± 5.13 respectively which is statistically significant (t=15.7. p <0.0001).

DISCUSSION

India's reputation as a country with a culture of abstinence especially in matters regarding alcohol is underserved. In the recent years there has been rapid proliferation of city bars and nightclubs and people are fast shedding their inhibitions about alcohol as a lifestyle choice.

While some states such as Nagaland, Gujarat, and Manipur have managed to ban the sale and consumption of alcohol, other states such as Tamil Nadu and Pondicherry continue to generate more revenue from the sale of alcohol.

The Government of Tamil Nadu sells alcohol via Tamil Nadu State Marketing Corporation Limited (TASMAC), and licensed pubs. Though the Tamil Nadu Prohibition Act, 1937 requires alcohol consumers to be at least 21 years, considerable drinkers are found to be below this age.

For this dissertation study, 30 patients were selected and they were treated in the OPD, Department of Sirappu Maruthuvam in Ayothidoss Pandithar Hospital, National Institute of Siddha, Tambaram Sanatorium Chennai -600 047.

This study has been carried out in a selected people who were attended for their treatment at this hospital not been in a general population.

Even though the drug was mentioned in Siddha literature and practiced in traditional Siddha physicians in Tamilnadu, based on various criteria, the data were collected and tabulated. The criteria were family history, sex predominance, age distribution, occupation, dietary habit of patient and incidence of the disease with reference to thinai, seasonal variation, clinical manifestation and assessment of the improvement in the prognosis of disease with the trial drug.

Among 30 cases all 30 (100%) were male and no female case reported. Most of the Indian based studies in related alcoholism, the female population was not included in their studies. According to the Tamil culture set-up, most of the females are reluctant to talk on such sensitive issues due to social stigma in their personnel lives. A study which was done in Faridabad showed the prevalence of alcohol use to

be 24.6% among men, while none of the women had used alcohol. In contrast, A cross sectional study were done in Villupuram district in Tamilnadu shows the female drinkers prevalence was reported in 1.3% (Ganesh Kumar. S et al) and at Andrapradesh, female drinker's prevalence was high, the reason may be their cultural belief that toddy improves the fetal movements, facilitates easy expulsion of placenta on child birth (labour) and during pregnancy period the toddy acts as a diuretic which is prevent pre-eclampsia in pregnancy (Padmavathy et al).

The study shows within 30 cases, 7 (23.3%) patients age was between 51- 60 years, 11 (36.6%) patients were between 31 and 40 years.

Similarly, in the study carried out by Dhupdale et al, the prevalence of alcohol consumption showed a peak near age 40. They found that 58.3% individuals in age group between 45 – 54 years old.

Fathima et al. carried out a study in rural Bangalore and found that prevalence of alcohol consumption was higher (43.1%) in the age group 41–60.

This dissertation study may have correlated with other studies factors such as lower literacy level, family history of alcohol consumption, and cigarette smoking were found to be positively associated with alcohol consumption. This is also being compared with the dissertation study showing the 63.3% of people were positive family history. Similarly, Dhupdale et alreported that having an alcoholic father was a risk factor for being an alcohol consumer (above 55%).

Meena et al. in their study conducted in Rohtak, found that 23.16% of alcohol users had an alcoholic father and 7.5% had alcoholic grandfather.

In this present study, considerable number of patients were reported form Neithal and Marutham thinai.

Highest number of patients 11(36.6%) were treated during Ilavenil kalam.and 7 cases who were treated in Munpani kalam. The complete observation shows that most of the cases were affected in seven body constituents like saram, seneer, oon, kozhuppu, enbu, moolai, sukkilam or suronitham mentioned as per the Siddha texts. Craving of alcohol, withdrawal symptoms, loss of appetite was present in all 30 cases.

Harmful use was present in 25 cases. The other important features were Negligence of activity present in 24 cases and family and social avoidance were observed in 10 cases.

Treatment

The following medicines were selected for this study to evaluate the efficacy as a trial drug.

1st day Oil bath with Arakku thylam (early morning before sunrise)

2nd day Purgation with Meganaatha kuligai (Early morning with ginger juice)

3rd day Advised to take rest

4th day Trail drug of Inji chooranam– 2gm two times a day with warm water.

Before enrolling the cases, patient went under counselling to explain the complication of alcohol intake, like physical, mental, social and economic impact. Further it was provided awareness of alcoholism for all 30 patients. During the treatment period frequency of alcohol intake, family and social interaction were monitored by family attendees and also advice to follow the pathiyam (Dietary regimen). Withdrawal symptoms like sleep disturbance, tremor, alcoholic hallucination and palpitation were reduced within 3-5 days. None of patients reported in severe withdrawal symptoms like seizure and delirium. In this study no, adverse events were observed during the course of the treatment. The outcome by AUDIT score, which has been validated and widely used in India. Which shows encouraging results of good improvement in 13patients (43%) moderate improvement in 11patients (37%), mild improvement in 4patients (13%) and poor improvement in 2 patients (7%) of cases. Nearly 5% of patient was drop-out from the study due to noncompliance consumption of medication. Good Improvement was observed in voluntary cases and person who were strong desired to stop alcohol intake. Patient didn't show any symptoms like aversion therapy clinically, during the treatment period. Laboratory investigation was done for all the cases before and after treatment. There was no variation in renal profiles and other parameters. Abnormal values shown in Liver function test was noted in most of the patients and which considerably reduced in after treatment. Further patients were monitored after treatment by a period of 1 month.

SUMMARY

The disease *Kudiveri noi* was taken for the clinical study with *Inji chooranam* as internal medicine. For the clinical study, 30 cases were selected based on the approved protocol. This study has been approved by IEC of NIS[Date of IEC Approval & its number: NIS/IEC/2016/11-10/14.10. 2016.The trial was registered in Clinical Trial Registry of india (CTRI/. All 30 cases were treated in OPD of Ayothidoss Pandithar Hospital of National Institute of Siddha, Chennai-47. The detailed study on *Kudiveri noi* with reference to its aetiology, pathogenesis, investigations, clinical features, diagnosis and treatment with trial drugs was done. The results were observed by AUDIT score. Among the 30 cases treated, of good improvement in 13patients (43%) moderate improvement in 11patients (37%), mild improvement in 4patients (13%) and poor improvement in 2 patients (7%) of cases.

CONCLUSION

The polyherbal formulation *Inji chooranam* exhibited no toxicity on short form administration. There was no adverse effect reported during the study period. The quantitative outcome of AUDIT score shows there is significant reduction between at the start and end of treatment i.e. the mean and standard deviation is from 26.6 ± 2.5 and 10.3 ± 5.13. The qualitative outcome shows encouraging results of good improvement in 13patients (43%) moderate improvement in 11patients (37%), mild improvement in 4 patients (13%) and poor improvement in 2 patients (7%). From the above results, the trail drugs *"Inji chooranam"* (Internal Medicine) is responded well for the treatment of *Kudiveri noi.*

FROM - I SCRENING &SELECTION PROFOMA:

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiveri Noi (Chronic Alcoholism***)"

Principal Investigator:

Reg. No:

1. SERIAL NO :

2. OP /IP NO: ----------

3. NAME: ……

4. AGE/GENDER: …….....

5. OCCUPATION: ……

6. INCOME: ……

INCLUSION CRITERIA

- Whether age is between 18-60 YES\ NO
- Sex M \ F
- Loss of appetite YES\ NO
- Nausea,vomiting YES\ NO
- Tremor YES\ NO
- Intoxication state YES\NO
- Craving/urge of alcohol YES\ NO
- Negligence of activity YES\ NO
- willing to attend OPD or admission in IPD for the trial YES\ NO
- Willingness for consent YES\ NO
- Willing to give specimen of blood for the investigation YES\ NO

EXCLUSION CRITERIA:

- Systemic diseases YES\ NO
- Other psychiatric illness YES\ NO
- Withdrawal symptoms like seizure, delirium YES\ NO
- Pregnancy and lactation YES\ NO
- Patient with any other serious systemic illness YES\ NO

ADMITTED TO TRAIL

YES ☐ NO ☐

If Yes, OPD ☐ IPD ☐

Serial NO: ☐☐

Date:

Station:

Signature of the Investigator:

Signature of the Lecturer: **Signature of the HOD**

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiverinoi (Chronic Alcoholism)***

Principal Investigator:

Reg. No:

FORM II

HISTORY TAKING PROFOMA

STUDY NO: **OP / IP NO:**

NAME: **AGE / GENDER:**

ADDRESS: **CONTACT NO:**

RELIGION: H / C / M / O.

OCCUPATION: **INCOME:**

DATE OF INTIAL ASSESSMENT:

COMPLAINTS & DURATION:

I.PERSONAL HISTORY:

1)ALCOHOLIC HISTORY:

1. Type of drink :

2. Frequency :
   Per day -
   Per week-

3. Quantity / intake :

4. CAGE - Questionnaire:

1.Have you ever felt you ought to cut down on your drinking?

2.Have people annoyed you by criticizing your drinking?

3.Have you ever felt guilty about your drinking?

4.Have you ever had a drink first thing in the morning (an 'eye opener') to steady your nerves or get rid of hangover?

5. Year of first consumption of alcohol:

6. Chronicity of continuous intake of alcohol since:

7. Stimulating factors:

OTHERS

PERSONAL HABITS	YES	NO	IF YES SPECIFY DURATION	AMOUNT/Qty
Smoking				
Tobacco Chewing				
Narcotic Drug Addiction				

2) FAMILY HISTORY

1. Whether this problem runs in family? 1. Yes 2. No

If yes, mention the relationship of affected person 1._____

2._____

2.Living with family or not

3. Marital status:
(married/unmarried/divorcee)

3) SOCIAL HISTORY:

1. Felt any type of ignorance by society for drinking?
2. If not able to fulfill your work because of drinking?
3.Irregularity in normal duties:
4. Mostly consume alone/friends:
5. Trauma / Accidents met because of drinking:
6. Criticized / Feeling guilty of mischievous activities if any

4)OCCUPATIONAL HISTORY:

Nature of job:

Whether your profession demands alcohol intake?

Do you work in your job with full statisfication/involvement?

How long do you work in same firm/company?

5) HISTORY OF FINANCIAL SATUS:

A. Source of income :

B. Part of income spent for alcohol:

6)HISTORY OF PREVIOUS ILLNESS AND TREATMENT TAKEN:

7)DIETARY STATUS:

1.Vegetarian
2.Non-vegetarian

8)MENSTURAL AND OBSTETRIC HISTORY

FORM -II B

CLINICAL ASSESSMENT PROFOMA

GENERAL EXAMINATION:

1. Body weight [Kg] :
2. Height [Cms] :
3. Body Temperature [F] :
4. Blood Pressure (mm/Hg):
5. Pulse Rate /min. :
6. Heart Rate / min. :
7. Respiratory Rate /min.:

		Yes	**No**
8. Pallor	:	☐	☐
9. Jaundice	:	☐	☐
10. Clubbing	:	☐	☐
11. Cyanosis	:	☐	☐
12. Pedal Oedema	:	☐	☐
13. Lymphadenopathy	:	☐	☐
14. Jugular venous pulsation	:	☐	☐

SYSTEMIC EXAMINATION

Cardiovascular system :

Respiratory system :

Gastro-intestinal system :

Liver :

Spleen :

Stomach :

Pancreas :

Central Nervous system :

Urogenital system :

Endocrine system :

SIDDHA SYSTEM OF EXAMINATION

1. THEGI (BODY CONSTITUTION):

1. Vatha udal ☐
2. Pitha udal ☐
3. Kaba udal ☐
4. Thontha udal ☐

2. NILAM (LAND WHERE THE PATIENT LIVED MOST):

1. Kurinji (Hilly terrain) ☐
2. Mullai (Forest range) ☐
3. Marutham (Plains) ☐
4. Neithal (Coastal belt) ☐
5. Paalai (Aridregion) ☐

3. KAALAM:

1. Kaar kaalam (Aavani-Purattasi) ☐
2. Koothir kaalam (Ippasi-Kaarthigai) ☐
3. Munpani kaalam (Maargazhi-Thai) ☐
4. Pinpani kaalam (Maasi-Panguni) ☐
5. Ilavenil kaalam (Chithirai-Vaigasi) ☐
6. Muthuvenil kaalam (Aani-Aadi) ☐

4. GUNAM:

1. Sathuvam ☐
2. Rasatham ☐
3. Thamasam ☐

5. PORIPULANGAL (SENSORY ORGANS):

	Before treatment	After treatment
Mei (Skin)	Normal / Affected	Normal / Affected
Vai (Tongue)	Normal / Affected	Normal / Affected
Kann (Eye)	Normal / Affected	Normal / Affected
Mooku (Nose)	Normal / Affected	Normal / Affected
Sevi (Ear)	Normal / Affected	Normal / Affected

6.KANMENDRIYAM (MOTOR ORGANS) :

	Before treatment	After treatment
Kai	Normal /Affected	Normal /Affected
Kaal	Normal /Affected	Normal /Affected
Vai	Normal /Affected	Normal /Affected
Eruvai	Normal /Affected	Normal /Affected
Karuvai	Normal /Affected	Normal /Affected

7. KOSANGAL (SHEATH):

	Before treatment	After treatment
Annamaya kosam	Normal /Affected	Normal /Affected
Pranamaya kosam	Normal /Affected	Normal /Affected
Manomaya kosam	Normal /Affected	Normal /Affected
Vignanamaya kosam	Normal /Affected	Normal /Affected
Ananthamaya kosam	Normal /Affected	Normal /Affected

8.SEVEN UDAL THAATHUKKAL (SEVEN SOMATIC COMPONENTS:

	Before treatment	After treatment
Saaram	Normal /Affected	Normal /Affected
Senneer	Normal /Affected	Normal /Affected
Oon	Normal /Affected	Normal /Affected
Kozhuppu	Normal /Affected	Normal /Affected
Enbu	Normal /Affected	Normal /Affected
Moolai	Normal /Affected	Normal /Affected
Sukkilam / Suronitham	Normal /Affected	Normal /Affected

9. UYIR THAATHUKKAL: [THREE HUMORS] (VALI/ AZHAL/ IYYAM)

A) VALI

	0th day	8th day	15th day	22nd day	29th day	36th day	43rd day	49th day
Praanan								
Abaanan								
Samaanan								
Udhaanan								
Viyaanan								
Naagan								
Koorman								
Kirukaran								
Devathathan								
Dhananjeyan								

B) AZHAL

	0th day	8th day	15th day	22nd day	29th day	36th day	43rd day	49th day
Analakam								
Ranjakam								
Saathakam								
Prasakam								
Aalosakam								

C) IYYAM

	0th day	8th day	15th day	22nd day	29th day	36th day	43rd day	49th day
Avalambagam								
Kilethagam								
Pothagam								
Tharpagam								
Santhigam								

10. ENVAGAI THERVU: [EIGHT TYPES OF EXAMINATION]

I. NAADI: [PULSE PERCEPTION]

NAADI	0thday	8th day	15th day	22ndday	29thday	36thday	43rdday	49thday

II. SPARISAM: [PALPATION]

Day	SPARISAM
0thday	
8th day	
15thday	
22ndday	
29thday	
36thday	
43rdday	
49th day	

III. NAA: [TONGUE]

NAA	0th day	8th day	15th day	22nd day	29th day	36th day	43rd day	49th day

IV. NIRAM: [COMPLEXION]

1. Vadham ☐
2. Pitham ☐
3. Kabam ☐

V. MOZHI: [VOICE]

1. High Pitched ☐
2. Low Pitched ☐
3. Medium Pitched ☐

VI.VIZHI: [EYES]

VIZHI	0th day	8th day	15th day	22nd day	29th day	36th day	43rd day	49th day

VII. MALAM: [BOWEL HABITS / STOOLS]

	Before treatment	After treatment
Niram		
Irugal		
Ilagal		
Others		

VIII. MOOTHIRAM [URINE EXAMINATION]

NEERKKURI:

Neerkkuri	Before treatment	After treatment
Niram		
Manam		
Edai		
Nurai		
Enjal		

NEIKKURI:

Neikkuri	Before treatment	After treatment
Aravana needathu/ Snake like pattern		
Azhipol paraviyathu Annular/Ringedpattern		
Muththothu ninrathu Pearlbeadepattern		
Other patterns		

CLINICAL ASSESSMENT DURING & AFTER TRIAL

1. OP/ IP NO: …… **2. SL. NO: ……**

3.NAME: ……. **4. AGE/GENDER: ……**

6. DATE OF RECRUITMENT: ……

CLINICAL EXAMINATION:

A. HEALTH ASSESSMENT QUESTIONNAIRE:

	0^{th} day	8^{th} day	15^{th} day	22^{nd}day	29^{th} day	36^{th} day	43^{rd}day	49^{th} day
A.Intoxication (present/absent)								
B.Harmful use (present/absent)								
C. Craving of alcohol (Absent/Mild/ Moderate/ Severe)								
D.Withdrawal symptom (present/absent)								
E.Negligence of activity (Present/absent)								
F.Time spent in alcohol- related activity (Present/absent)								

G.Family and Social status (Poor/Normal/ Developed)								
H.Loss of appetite (Present/absent)								
I.Nausea,vomiting (Present/absent)								

CLINICAL ASSESSMENT BEFORE AND AFTER TRIAL

B. Alcohol use disorder identification test (AUDIT)

The Alcohol Use Disorders Identification Test (AUDIT), developed in 1982 by the World
Health Organization, is a simple way to screen and identify people at risk of alcohol Problems.

	BEFORE TRIAL	AFTER TRIAL
1. How often do you have a drink containing alcohol?		

(0) Never (Skip to Questions 9-10)
(1) Monthly or less
(2) 2 to 4 times a month
(3) 2 to 3 times a week
(4) 4 or more times a week

3. How many drinks containing alcohol do you have on a typical day when you are drinking?

(0) 1 or 2
(1) 3 or 4
(2) 5 or 6
(3) 7, 8, or 9
(4) 10 or more

3. How often do you have six or more drinks on one occasion?

(0) Never
(1) Less than monthly
(2) Monthly
(3) Weekly
(4) Daily or almost daily

4. How often during the last year/Treatment period have you found that you were not able to stop drinking once you had started?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

5. How often during the last year/Treatment period have you failed to do what was normally

expected from you because of drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

6. How often during the last year/Treatment period have you been unable to remember what happened the night before because you had been drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

7. How often during the last year/Treatment period have you needed an alcoholic drink first thing in the morning to get yourself going after a night of heavy drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

8. How often during the last year have you had a feeling of guilt or remorse after drinking?

(0) Never

(1) Less than monthly

(2) Monthly

(3) Weekly

(4) Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

(0) No

(2) Yes, but not in the last year

(4) Yes, during the last year

10. Has a relative, friend, doctor, or another health professional expressed concern about your drinking or suggested you cut down?

(0) No

(2) Yes, but not in the last year

(4) Yes, during the last year

Add up the points associated with answers. A total score of 8 or more indicates harmful

drinking behavior.

Total no of scoring-

Score 0-7 : No risk

Score 8-15 : Mild risk

Score 16-19 : Moderate risk

Score 20-40 : Severe risk

Date:

Station:

Signature of the Investigator:

Signature of the Lecturer: Signature of the HOD:

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiverinoi(Chronic Alcoholism***)"

Principal Investigator:

Reg. No:

.FORM-IIILABORATORY INVESTIGATIONS

BLOOD INVESTIGATIONS		NORMAL VALUES	BEFORE TREATMENT	AFTER TREATMENT
Hb(gm/dl)		M:13-18 W:11-16		
T.RBC(millions cells /Cu.mm)		M:4.5-6.5 W:3.5-5.5		
ESR (mm)	½ hr.	-		
	1 hr.	M:0-10 W:0-20		
T.WBC (Cells /Cu.mm)		4000-11000		
Differential Count (%)	Polymorphs	40-75		
	Lymphocytes	20-35		
	Monocytes	2-10		
	Eosinophils	1-6		
	Basophils	0-1		

BLOOD INVESTIGATIONS		NORMAL VALUES	BEFORE TREATMENT	AFTER TREATMENT
Blood glucose (mg/dl)	Fasting	70-110		
	PP	80-140		
Lipid profile (mg/dl)	Serum cholesterol	150-200		
	HDL	30-60		
	LDL	Up to 130		
	VLDL	40		
	TGL	Up to 160		
RFT (mg/dl)	Blood urea	16-50		
	Serum creatinine	0.6-1.2		
LFT (mg/dl)	Total bilirubin	0.2-1.2		
	Direct bilirubin	0.1-0.2		
	Indirect bilirubin	0.2-0.7		
	Total protein	6-8		
	Serum Albumin	3.5-5.5		
	Serum globulin	2-3.5		
	SGOT (IU/L)	0-40		
	SGPT (IU/L)	0-35		
	Alkaline phosphatase	80-290		
	Serum calcium	9-11		
	Serum phosphorus	2-5		
	Serum Uric acid	M:3-9 W: 2.5-7.5		
CRP				
ASO titre				
RA factor				

B. URINE INVESTIGATIONS:

URINE INVESTIGATIONS	BEFORE TREATMENT	AFTER TREATMENT
Albumin		
Sugar (Fasting) **(PP)**		
Deposits		
Bile salts		
Bile pigments		

SPECIFIC INVESTIGATIONS:

Gamma-glutamyl-transpeptidase (GGT) :

Blood alcohol concentration :

USG-abdomen :

Date:
Station:

Signature of the Investigator:

Signature of the Lecturer:

Signature of the HOD

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiveri Noi (Chronic Alcoholism***)"

Name of Principal Investigator: **Reg. No :**

CONSENT FORM - FORM VI

"I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction.

I consent voluntarily to participate as a participant in this study and understand that I have the right to withdraw from the study at any time without in any way it affecting my further medical care".

"I have received a copy of the information sheet/consent form".

Date:

Signature of the participant:
In case of illiterate participant:

"I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm individual has given consent freely."

Date:

Signature of a witness
(Selected by the participant bearing no connection with the survey team)

Left thumb Impression of the Participant

FORM VI ஒப்புதல் படிவம்
ஆய்வாளரால் சான்றளிக்கப்பட்டது

நான்குடிவெறி நோய்என்னும் நோயின் ஆய்வைக் குறித்த அனைத்து விபரங்களையும் நோயாளிக்குப் புரியும் வகையில் எடுத்துரைத்தேன் என உறுதியளிக்கிறேன்.

தேதி: **கையொப்பம்:**

இடம்: **பெயர்:**

நோயாளியின் ஒப்புதல்

என்னிடம் இந்த மருத்துவ ஆய்வின் காரணத்தையும், மருந்தின் தன்மை மற்றும் மருத்துவ வழிமுறை பற்றியும், தொடர்ந்து எனது உடல் இயக்கத்தைக் கண்காணிக்கவும், அதனைப் பாதுகாக்கவும் பயன்படும் மருத்துவ ஆய்வுக்கூட பரிசோதனைகள் பற்றி திருப்தி அளிக்கும் வகையில் ஆய்வு மருத்துவரால் விளக்கிக் கூறப்பட்டது.

நான் இந்த மருத்துவ ஆய்வின் போது, காரணம் எதுவும் கூறாமல், எப்பொழுது வேண்டுமானாலும் இந்த ஆய்விலிருந்து என்னை விடுவித்து கொள்ளும் உரிமையைத் தெரிந்திருக்கின்றேன்.

நான் என்னுடைய சுதந்திரமாகத் தேர்வு செய்யும் உரிமையைக் கொண்டுகுடிவெறி நோய்க்கு இஞ்சி சூரணம் என்னும் மருந்தின் பரிகரிப்புத் திறனைக் கண்டறியும் மருத்துவ ஆய்விற்கு என்னை உட்படுத்த ஒப்புதல் அளிக்கிறேன்.

கையொப்பம்:

பெயர்:

சாட்சிக்காரர் கையொப்பம்:

பெயர்:

உறவுமுறை:

விரிவுரையாளர் கையொப்பம்

FORM V – PATIENT INFORMATION SHEET

Name of Principal Investigator: **Reg. No :**

Name of the institute: National Institute of Siddha,
Tambaram Sanatorium,
Chennai-47.

INFORMATION SHEET FOR PATIENTS PARTICIPATING IN THE OPEN CLINICAL TRIAL.

I, Dr. S. UTHRAPATHI Studying M.D (Siddha) at National Institute of Siddha, Tambaram Sanatorium is doing a trial on *KUDIVERI NOI (CHRONIC ALCOHOLISM).*Alcoholism is a most common psychiatric disease, occurring throughout the world. In this regard, I am in a need to ask you few questions. I will maintain confidentiality of your comments and data obtained. There will be no risk of disclosing your identity and no physical, psychological or professional risk is involved by taking part in this study. Taking part in this study is voluntary. No compensation will be paid to you for taking part in this study.

You can choose not to take part. You can choose not to answer a specific question. There is no specific benefit for you if you take part in the study. However, taking part in the study may be of benefit to the community, as it may help us to understand the problem of defaulters and potential solutions.

If you agree to be a participant in this study, you will be included in the study primarily by signing the consent form and then you will be given the internal medicine ***Inji Chooranam*** for the treatment of ***Kudiveri Noi (Chronic Alcoholism***)"

The information I am collecting in this study will remain confidential. I will ask you few questions through a questionnaire.

If you wish to find out more about this study before taking part, you can ask me all the questions you want or contact Dr.S.UTHRAPATHI PG Scholar cum principal investigator of this study, attached to National Institute of Siddha, Chennai-47. You can also contact the Member-secretary of Ethics committee, National Institute Siddha, Chennai 600047, Tel No: 7358804064, for rights and participation in the study.

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiverinoi (Chronic Alcoholism***)"

Name of Principal Investigator: **Reg. No :**

FORM -VIII DIETARY ADVICE FORM

சேர்க்க கூடிய உணவுகள்	தவிர்க்க வேண்டியவைகள்
காய்கள் (Vegetables): கத்தரிப்பிஞ்சு (Unripe brinjal) முருங்கைப்பிஞ்சு (Unripe drumstick) அவரைப்பிஞ்சு (Unripe Dolichos bean) வெள்ளரிக்காய் (Cucumber) புடலை (Snake gourd) பீர்க்கு (Ridged gourd) கீரைகள்(Greens): பொன்னாங்கண்ணி (Sessile plant [*Alternanthera sessilis*]) புதினா (Hog weed [*Boerhaavia diffusa*]) கொத்தமல்லி *(coriander seed)* முருங்கைக்கீரை (Leaves of Drumstick [*Moringa oleifera*]) கறிவேப்பிலை (Curry leaf [*Murraya koenigii*]) முடக்கறுத்தான் (Winter cherry [*Cardiospermum halicacabum*]) அறுகீரை (*Amaranthus tristis*) கரிசாலை (trailing eclipta [Eclipta prostrate])	அகத்தி கீரை(*sesbania grandiflora)* பாகற்காய்(Bitter gourad) எண்ணெய் (Gingelly oil) புளிப்பு (Sour) உப்பு (Salt) வாயுப் பொருட்கள் (Vatha diet) உருளைக் கிழங்கு (Potato) வாழைக் காய் (Plantain) புகையிலை (Tobacco) மது அருந்துதல் (Alcohol) பெண்போகம் (இச்சா பத்தியம்) [Sexual intercourse]

பழங்கள்(Fruits): நெல்லி கனி*(phyllanthus emblica)* மாதுளை (Pomegranate) ஆப்பிள் (Apple) பப்பாளி (Papaya) ஆரஞ்சு (Orange) பேரீச்சை (Dates) அத்தி (Fig) நாவல் (Jambul [*Syzygium cumini*]) அசைவம் (Non-vegetarian diet): வெள்ளாட்டுக்கறி (Meat) காடை (Quail) ,	

மருத்துவ அறிவுரை:

ஈரமில்லாத் தரையிலும், படுக்கையிலும் படுத்தல் வேண்டும்,
குளிர் காற்று படும்படியான இடத்தில் இருப்பதைத் தவிர்க்கவும்.
தனிமையை தவிர்க்கவும்

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiveri noi (Chronic Alcoholism***)"

Name of Principal Investigator: **Reg. No :**

FORM VII - WITHDRAWAL FORM

1. SERIAL NO OF THE CASE: ……

2. OP / IP NO: .....

3. NAME: ……

4.AGE: ……

5.GENDER:.....

6. DATE OF TRIAL COMMENCEMENT: ……...

7. DATE OF WITHDRAWAL FROM TRIAL: ……..

8. REASONS FOR WITHDRAWAL:

Long absence at reporting:	Yes/ No
Irregular treatment:	Yes/ No
Shift of locality:	Yes/No
Increase in severity of symptoms:	Yes/No
Development of severe adverse drug reactions:	Yes/No
Development of adverse event :	Yes/No

Date:

Station:

Signature of the Lecturer:

Signature of the Investigator:

Signature of the HOD

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiverino (iChronic Alcoholism***)"

Name of Principal Investigator: **Reg. No:**

ADVERSE REACTION FORM

SERIAL NO:

OP/IP NO:

NAME: **AGE:** **GENDER:**

DATE OF TRIAL COMMENCEMENT:

DATE OF THE ADVERSE REACTION OCCUR:

DESCRIPTION OF ADVERSE REACTION:

Date:
Station:

Signature of the Investigator:

Signature of the Lecturer:

Signature of the HOD

NATIONAL INSTITUTE OF SIDDHA
AYOTHIDOSS PANDITHAR HOSPITAL, CHENNAI – 600 047.

POST-GRADUATE DEPARTMENT OF SIRAPPU MARUTHUVAM

An open clinical trial to Evaluate the Therapeutic Efficacy of Siddha Herbal formulation ***Inji Chooranam*** for the treatment of ***Kudiverinoi (Chronic Alcoholism***)"

Name of Principal Investigator: **Reg. No :**

FORM - IV (DRUG COMPLIANCE FORM)

SERIAL NO:

NAME:

DRUG NAME:

On 1st day-Date: Drugs issued: Drugs returned
On 8th day-Date: Drugs issued: Drugs returned:
On 15th day-Date: Drugs issued: Drugs returned:
On 22th day-Date: Drugs issued: Drugs returned:
On 29th day-Date: Drugs issued: Drugs returned:
On 36th day-Date: Drugs issued: Drugs returned:
On 43th day-Date: Drugs issued: Drugs returned:

Day	Date	Morning	Evening	Day	Date	Morning	Evening
Day 1				Day6			
Day2				Day7			
Day3				Day8			
Day4				Day9			
Day5				Day10			
Day11				Day30			
Day12				Day31			
Day13				Day32			
Day14				Day33			
Day15				Day34			
Day16				Day35			
Day17				Day36			
Day18				Day37			
Day19				Day38			
Day20				Day39			
Day21				Day40			
Day22				Day41			
Day23				Day42			
Day24				Day43			
Day25				Day44			

Day26				Day45			
Day27				Day46			
Day28				Day47			
Day29				Day 48			

Date:
Station:

Signature of the Investigator:

Signature of the Lecturer:

Signature of the HOD

Certificate for Research methodology and Biostatics:

The Tamil Nadu Dr.M.G.R.Medical University

69, Anna Salai, Guindy, Chennai - 600 032.

This Certificate is awarded to Dr/Mr/Mrs.....UTHRAPATHI.S.....

For participating as ~~Resource Person~~ / Delegate in the Twenty First Workshop on

"RESEARCH METHODOLOGY & BIOSTATISTICS"

For AYUSH Post Graduates & Researchers

Organized by the Department of Siddha

The Tamil Nadu Dr. M.G.R. Medical University From 25th to 29th April 2016.

Dr.N.KABILAN, MD(S).
PROF & HEAD
DEPT.OF SIDDHA

Prof.Dr.P.ARUMUGAM, M.D.,
REGISTRAR i/c

Prof. Dr.S.GEETHALAKSHMI, M.D., Ph.D.,
VICE CHANCELLOR

Certificate for IEC

NATIONAL INSTITUTE OF SIDDHA- राष्ट्रीय सिद्ध संसथान
Ministry of AYUSH- आयुष मंत्रालय
GOVERNMENT OF INDIA-भारत सरकार
TAMBARAM SANATORIUM, CHENNAI -600 047 -ताम्बरम सनटोरियमचेन्नई -600 047
फ़ोन\Tele : 044-22411611 फैक्स\Fax : 22381314
ईमेल: nischennaisiddha@yahoo.co.in वेब www.nischennai.org

F.No.NIS/6-20/IEC/15-16 Dt: 14.10.2016

CERTIFICATE

Address of Ethics Committee: National Institute of Siddha, Tambaram Sanatorium, Chennai-600047, Tamil Nadu, India	
Principal Investigator: Dr. S.Uthrapathi – I year, Dept.of Sirappu Maruthuvam	
Protocol Title:- Evaluation of therapeutic Efficacy of Inji Chooranam (Internal Medicine) for the treatment of Kudiveri Noi (Chronic Alcoholism).	
Documents filed	1) Protocol, 2) Data Collection forms
Clinical trial Protocol (others – Specify)	**Yes-(M.D-Dissertation)**
Informed consent documents	**Yes**
Any other documents	**-**
Date of IEC approval & its number	**NIS/IEC/2016/11-10/ 14.10.2016**

We approve the trial to be conducted in its presented form.

The Institutional Ethics Committee expects to be informed about the progress of the study, any SAE occurring in the course of the study.

(Dr.V.Subramanian)
Chairman

(Prof.Dr.V.Banumathi)
Member Secretary

NATIONAL INSTITUTE OF SIDDHA * CHENNAI 600 047

Authendication certificate for Inji choornam (Trial drug)

+

NATIONAL INSTITUTE OF SIDDHA, CHENNAI – 600047

BOTANICAL CERTIFICATE

Certified that the following plant drugs used in the Siddha formulation **"Inji Chooranam"** (Internal) taken up for Post Graduation Dissertation studies by **Dr.S.Uthrapathi** M.D.(S), II year, Department of Sirappu Maruthuvam, 2017, are identified through Visual inspection, Experience, Education & Training, Organoleptic characters, Morphology and Taxonomical methods as

Zingiber officinale Rosc. (Zingiberaceae), Fresh Rhizome
Elettaria cardamomum Maton (Zingiberaceae), Fruit
Zingiber officinale Rosc. (Zingiberaceae), Dried Rhizome
Piper nigrum Linn. (Piperaceae), Fruit
Piper longum Linn. (Piperaceae), Fruit
Syzygium aromaticum (Linn.) Merr. & L.M Perry (Myrtaceae), Flower bud
Trachyspermum ammi (Linn.) Sprague (Apiaceae), Fruit
Celastrus paniculatus Willd. (Celastraceae), Seed
Myristica fragrans Houtt. (Myristicaceae), Nut
Scindapsus officinalis Schott. (Araceae), Fruits
Cuminum cyminum Linn. (Apiaceae), Fruit
Glycyrrhiza glabra Linn. (Fabaceae), Root
Hyoscyamus niger Linn. (Solanaceae), Seed
Withania somnifera Dunal (Solanaceae), Root
Papaver somniferum Linn. (Papaveraceae), Seed
Cinnamomum tamala Nees & Eberm. (Lauraceae), Leaf
Piper longum Linn. (Piperaceae), Root
Coriandrum sativum Linn. (Apiaceae), Fruit
Phoenix dactilifera Linn. (Arecaceae), Dried fruit
Vitis vinifera Linn. (Vitaceae), Dried fruit
Saccharum officinarum Linn. (Poaceae), Cane jaggery powder.

MEDICINAL BOTANY * CHENNAI 600 047 * National Institute of Siddha

Certificate No: NISMB2962017

Date: 21-04-17

Authorised Signatory
Dr. D. ARAVIND, M.D.(s),M.Sc.,
Assistant Professor
Department of Medicinal Botany
National Institute of Siddha
Chennai - 600 047, INDIA

Bibiliography:

- Dr.Thiyagarajan‟R,Siddha Maruthuvam Sirappu,chennai(Tamil Nadu):Commissionerate of Indian medicine & homeopathy,2008,3nd Edition,P.No: 80
- Mohan.R.C ,Nantheesar Agalamarana nool, Chennai(TamilNadu). Tamarai library ,July 2013,3rd Edition P.No.67-69.
- Thiyagarasan R.,Gunapadam part II Chennai(TN), Inidan medicine-Homeopathy Department 2004, 4thEdition , PnNo.92-97
- Dr.Kuppu samy muthalaiyar‟K.N,Siddha Maruthuvam pothu,chennai(Tamil nadu):commissionerate of Indian medicine & homeopathy,2012,2nd Edition,P.No: 533
- Mohan R.c., pathatha guna sindhamani, Chennai(TN) Thamarai library .Dec 2016, 3rd edition, Pg.No 50,51.
- Narayanavelu pillai M., Thirukural, Chennai(TN) Narmatha publications, June 2008, p.no.63,64
- Soundarapandian S, Manimegalai solaaraichi, Chennai(TN), Thamarai library,Dec 2002, 1st Edition
- Arangarajan‟S,Agathiyar attavanai vagadam,Thanjavur(Tamil nadu):Saraswathy mazhal librarary,Mar 2007,2nd Edition,P.No: 82
- Kannusamipillai C., Sigicha rathina deepam, Chennai(TN), B.Rathnanayagar& sons, 2007
- Ruma Dutta, Sruthy Gnanasekaran. A Population based Study on Alcoholism among Adult Males in a Rural Area, Tamil Nadu, India Journal of Clinical an Diagnostic Research, 2014 Jun, Vol-8(6):JC01-JC03
- T.Govindharaja, and Dr. A. Jayakodib. IMPACT OF ALCOHOL CONSUMPTION ON HEALTH: EVIDENCE FROM RURAL TAMIL

NADU, INDIA. ISSN: 2347-937X, International Journal of World Research, Vol: I Issue XXIII, November 2015.

- Krishnan A, Shah B, Lal V, Paul E, Kapoor SK. Prevalence of risk factors for non- communicable diseases in a rural area of Faridabad district of Haryana,Indian J Public Health.2008:52:117-24

- Ganesh Kumar S, Premarajan KC, Subitha L, Suguna E, Vinayagamoorthy, Veera Kumar. Prevalence and pattern of alcohol consumption using Alcohol Use Disorders Identification Test (AUDIT) in rural Tamil Nadu, India. J Clin Diagn Res 2013;7(8):1637–9

- Potukuchi PS, Rao PG. Problem alcohol drinking in rural women of Telangana region, Andhra Pradesh. Indian J Psychiatry 2010;52:339-43

- D hupdale NY, Motghare DD, Prasad YD, Feereira AMA. Preva- lence and pattern of alcohol use in rural Goa. Indian J Commun Med 2006;31:104–5.

- Fathima FN, Agarwal T, Nandish B, Rathnapraha, Sebastian R, Sharma A, et al. Alcohol consumption harmful use and depend- ence among adult males in a village. Nat J Res Commun Med 2012;1(2):109–14.

- Meena, Khanna P, Vohra AK, Rajput R. Prevalence and pattern of alcohol and substance abuse in urban areas of Rohtak city. Indian J Psychiatry 2002;44(4):348–52.

- Pal HR, Jena R, Yadav D. Validation of the Alcohol Use Disorders Identification Test (AUDIT) in Urban Community Outreach and De-Addiction Centre Samples in North India. J Stud Alcohol. 2004;65:794–800.Somasundaram S. Maruthuva thavaravial. Ilangovan pathipagam, thirunelveli,India. 2009,3.

- Murugesa muthalaiyar K.S., Gunapadam partI Mooligai vaguppu, Chennai(TN), Inidan medicine-Homeopathy Department,2003, 7th Edition, pg.No.21

- Thiyagarajan R., Teriyar yamaga venba, Chennai(TN), Sri boomadevi printers, Aug 1997, Ist Edition

- Shanmugavelu M, Noi Nadaal Noimuthal naadal thirattu, Chennai(TN). Indian Medicine and Homeopathy Department,2003, 3rd Edition, Pn.No 169,170.